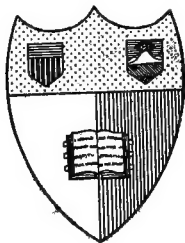


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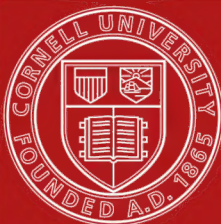
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PROCEEDINGS OF *The* FEDERAL ELECTRIC RAILWAYS COMMISSION

Held in WASHINGTON, D. C., during the months
of July, August, September, and October, 1919

=====together with=====

Final Report of the Commission to the President

—

IN THREE VOLUMES

VOL. 2

*For Report of the Commission, see pages 2260-2289 of Volume 3.
For General Index and Digest, see pages 2291-2349 of Volume 3.*

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PROCEEDINGS OF FEDERAL ELECTRICAL RAILWAYS COMMISSION.

WASHINGTON, D. C., *August 11, 1919—10 a. m.*

The commission met pursuant to adjournment.

Present: Parties as before.

STATEMENT OF HON. NEWTON D. BAKER, SECRETARY OF WAR.

The CHAIRMAN. Gentlemen, come to order. Mr. Secretary, the commission is very pleased to have you with us this morning and would be glad to listen to you.

Secretary BAKER. Thank you. Perhaps you would be willing to indicate what line of observation the commission would like me to follow. What is your own objective, if I may ask it?

The CHAIRMAN. Personally, I would rather have you develop, as fully as you can, the Cleveland plan. I understand you had a good deal to do with the formation of that plan and you know what the effect is. The commission wants to know whether such a plan fairly protects the public interest, if it results in inefficiency in operation, extravagance, or things of that kind.

Secretary BAKER. Well, Mr. Chairman, the Cleveland situation grew out of a condition which I suppose is more or less common in cities in this country. When I first became acquainted with the Cleveland situation there were two large combinations of street railroads, one known as the "Big Consolidated" and the other, the "Little Consolidated." Each of those has been formed of a number of lines and, for the most part, they did not compete. The Little Consolidated lines which were primarily the property of Senator Hanna, were on the west side of the river in Cleveland and the Big Consolidated lines, which were headed by Mr. Horace Andrews, and the Everett family, who had been life-long street-railroad operators, were largely on the east side of the river. That was not a perfectly hard division, but for the most part it was accurate.

Those two companies had been formed by the consolidation of a large number of lines of railroad which had been built as individual enterprises.

When Tom Johnson became mayor of Cleveland his platform was, as it afterwards came to be phrased, "Three-cent fare." There were a number of expirations of lines, franchises, which were in immediate view, but the situation in Cleveland was just as it is in every other city that I have ever had an opportunity to examine; franchises had been granted to lines for a definite period, then exceptions had been authorized on those lines, extensions of track and doubtful

phrases were contained in the extension ordinances which the companies contended meant renewals of the parent grant and which the city contested as to that interpretation. There were a number of ordinances changing rates of fare in consideration of extensions. Those, it was also contended, had the effect of renewing the parent grant on the modified rate of fare for the maximum period possible under the Ohio law, which was 25 years. So that the whole situation as between the city and these two consolidated companies — there were no renewals of franchises upon the formation of the consolidation; those were voluntary and were corporate, and not public in any way and had no sanction from the public except a mere permissive resolution on the part of the council which it was contended by nobody gave any extension to the life either of the consolidated franchises or the constituent parts. But there were these contentions, the duration of the underlying grants of the constituent roads, the effect of the extension ordinances and the effect of fare ordinances.

Mr. Johnson's theory—and the whole Cleveland street-railroad situation is a development of Tom Johnson's theories; they are not mine, and it is of the highest importance that it should be realized that they were his; not that I do not sympathize with them, but they were his creation, and the result in Cleveland is his result, and he is entitled to all the credit, and it is very great, for the settlement in Cleveland—Mr. Johnson's contention never was really an arbitrary 3-cent fare. That became the slogan. Because, of course, it was easier to pack into that phrase the things that Mr. Johnson stood for than any other phrase. But he always believed first that street railroads should be operated in the interest of the service; that it was a public utility; its object was to serve the public; and therefore the first objective to be attained was service. And second, he believed that the rate of fare should be a flexible rate of fare and, by some process, determined from time to time so as to secure the lowest possible rate of fare to the users of the road, consistent with an adequate payment of wages and operating expenses and a fair return on the investment.

Those principles seem perfectly axiomatic and simple when stated in that fashion, and yet of course at the very outset they came up against the problem of overcapitalization. Mr. Johnson had been, I think, one of the formers, one of the organizers, of the group known as the Big Consolidated. He had owned a number of street railroads in Cleveland, had built a number there, a good many years prior to his having become mayor, and was, I am inclined to think, president of the Big Consolidated, Cleveland Electric Railroad Co., when it was first formed. He used to tell me that the way that corporation was formed was that all of the roads which were to be consolidated met together by representatives from their boards of directors, turned in their stock, the aggregation assumed the bonded indebtedness of all of the constituent companies, and issued consolidated stock for each share of constituent stock, in the ratio of one share of constituent stock for five shares of Consolidated stock. In other words, a man who put in a \$100 share of stock in a constituent railroad took out \$500 worth of stock in the Consolidated railroad.

The CHAIRMAN. How many constituent railroads were there?

Secretary BAKER. I can not answer that from recollection. There must have been half a dozen, at least. There must have been half a dozen lines that were originally separate and may have been formed into subsidiary consolidations before I had any contact with it at all. I used to know the history pretty well, but I have not thought of it for a long time, so that—

The CHAIRMAN. At that time when that plan was consummated, can it fairly be stated that the stock of the Consolidated represented as 5 to 1 of the stock of the constituent companies?

Secretary BAKER. Substantially that. That was Mr. Johnson's general statement about it. There are no secrets in that business now, because this has all been talked out in full in Cleveland; and the situation is so changed that nobody would object, I am sure, to my quoting Mr. Johnson's statements to me on that subject. Nobody has any sensibilities about it any more. But what they did was to turn on the hose, and they gave five shares of Consolidated stock for each share of constituent stock, although the market value of the constituent stock at the time of the consolidation was very little, if any, above par in any of the constituent companies.

Of course, what they were doing was capitalizing the advantages of consolidation and centralized management and the speculative advantages of the future growth of the city of Cleveland.

Well, we faced, therefore—and when I say “we” I mean Mr. Johnson and those who were associated with him—faced a problem first of an enormous overcapitalization of the properties. Shortly after the contest began—it was a legal contest in its outset—Mr. Johnson undertook to assert an expiration of some of the underlying grants of some of the constituent companies. His belief was that the so-called Woodlawn Avenue franchise expired in 1908. It was one of the underlying franchises of the Little Consolidated Railroad, which was Senator Hanna's property. There was a lawsuit brought about it by the Little Consolidated Railroad Co. to enjoin the city from enforcing the expiration of the grant; and that case went to the Supreme Court of the United States, and it was decided adversely to the city on the ground that some years prior to 1908 there had been an extension granted to that railroad and in consideration for the extension the company had agreed to issue tickets good throughout its entire system at a somewhat modified rate of fare, and the Supreme Court of the United States sustained the view of the local district judge to the effect that the purpose of that ordinance was to make a complete line of the Woodlawn Avenue Street Railway Co.'s property and to have a uniform rate of fare over it for the entire period of the extension, a technical question based upon the wording of the ordinance, of course.

The next expiration that was claimed was with regard to a street known as Central Avenue in Cleveland, which it was contended by Mr. Johnson expired in 1910—I may have these dates wrong. Anyhow, he gave a date of expiration for it. The company contended that it was a perpetual grant and that it had got this grant without a limitation of time prior to the enactment of a State statute which limited all grants to 25 years, and that by reason of the building of a cross-town line coupling up the radial line—Cleveland is a fan-shaped city with its head on the lake, and the main thoroughfares radiate out like the ribs of a fold fan unfolded—that the building of a cross-town

line that intersected and exchanged transfers with the radial lines had extended the life of all of the intersected lines to at least the life of the cross-town line; so that their contention was twofold, that they had a perpetual grant on one theory and if they did not have that they at least had 16 or 17 years by reason of the extension of life due to the building of the cross-town line.

That case was litigated to the Supreme Court of the United States and decided against the company and its grant was declared to have expired on the Central Avenue line. I do not know whether this is interesting to you, but it is the history of a contest which will come to an end in just a moment with a settlement.

Mr. WARREN. That was the Big Consolidated, was it not?

Secretary BAKER. That was the Big Consolidated.

Mr. WARREN. That line?

Secretary BAKER. That line. At that time there was a tremendous amount of excitement in the city of Cleveland. It was the first real victory for Mr. Johnson's theories and his cause. The public sentiment in Cleveland was aroused over that issue as I never saw any local sentiment aroused on any subject.

Commissioner SWEET. What was the date, Mr. Secretary?

Secretary BAKER. Well, Mr. Johnson began in 1901 and these contests ran along until 1910 when he was defeated for reelection.

Commissioner SWEET. But the date of this decision that you just referred to in Cleveland in favor of the city?

Secretary BAKER. I must be wrong about it, Mr. Sweet. It must have been a 1906 or 1907 expiration. Maybe not; it may have been as late as 1908. If you are interested in that case, I can give you the citation to it in the United States Reports. I think it is in the Two hundred and first United States Reports. The first is in the One hundred and ninety-seventh United States Reports and the second in the Two hundred and first United States Reports.

Well, the contest had become very serious at that time. There were in all, I think, in that period of contest, some 40 to 45 injunction suits against the city of one kind or another. I was the city solicitor at the time and did nothing else but try street-railway injunction cases.

The contest or the effort to arrive at a settlement and adjustment of the street railroads was constant. In order to present a more solid front they had consolidated the two consolidations; the Big and Little Consolidated went together into a consolidation known as the "Con-Con," the two Consolidateds; and thereafter, of course, the corporate interests presented a solid and undivided front. There were constant efforts by negotiations and otherwise to reach an agreement with them, but they were all futile, and litigations very often went against the city on these doubtful phrases in the ordinances. And finally a new attack was made on the problem, which was to procure the building of competing lines on a new system of franchises which would charge a lower rate of fare. Half a dozen street-railroad companies were organized. Ultimately, however, the Forest City Railroad Co., so called, became the real agent for the construction of these competing lines.

Its stock was sold to everybody, and large amounts of it were bought by the people of Cleveland who were very much aroused by this business, and a number of grants were made to it of street-railroad rights and franchises upon which they built; but the streets,

leading into the downtown or business section of the city were all occupied by outstanding or claimed grants of the old companies, and it was very difficult to get any joint use of tracks through the heart of the city so as to couple up the dismembered sections of the Forest City property into a system. That led to most of the injunction suits. Ohio is one of four States I think, which has the absurd and unconstitutional, as I believe, requirement that there must be a consent of the majority of the foot frontage of abutting property upon a street before a street railroad can be laid in that street. I think that an unconstitutional requirement. The Supreme Court apparently takes the other view, however; but some of these days, if the States are absurd enough to keep that law, I hope to see the Supreme Court of the United States declare its unconstitutionality. Well, we had this litigation going on continuously about the Forest City Railroad and the practice of getting either joint use of tracks or new streets. We took a strip of land off a public cemetery one day and made a street out of that, and that was a new street, so we could grant rights in that street. And the most extremely ingenious and subtle efforts were made by Mr. Johnson to get around the difficulties of the situation.

When the Central Avenue grant was declared by the Supreme Court of the United States to have expired, the Cleveland Railway Co., or Con-Con, decided to teach the people of Cleveland a lesson, and it gathered a great group of people together and went up and tore up the tracks of the Central Avenue line. It was its most recently laid line. It was laid in concrete with the best roadbed of any street in the city; as a concession for its grant it had paved the street with the finest pavement there was anywhere in Cleveland. The rail was 90 pounds or, I think, a 110-pound rail—I have forgotten—but it was the very latest type; and it tore up about $2\frac{1}{2}$ miles of that street and replaced the pavement as notice to the city of Cleveland that if it did not come to some adjustment with it, it would simply tear up the tracks and let the people do without any street railroads at all.

That, of course, presented a serious complication. The people on the street were pretty patient about it and used adjacent lines, although they were somewhat inconvenienced by it. And then we came by the lapse of time to a place where obviously on the same principles a large number of other grants were about to fall in and expire. That predisposed everybody to an adjustment, the public desiring to avoid the inconvenience of a destruction of the service and the company desiring to avoid the vast destruction of its invested capital. And finally a suggestion was made that a plan be worked out which would compromise and settle the difficulties of the situation.

The Cleveland Railway Co., the Con-Con, placed its entire case in the hands of Mr. F. H. Goff, who was then, as he is now, the president of the Cleveland Trust Co., a lawyer of great distinction and great ability, and a man of such high character that everybody on both sides of every question has confidence in his capacity and in his fairness. He and Mr. Johnson met in the council chamber, and debated for a period of six or eight weeks a settlement before the members of the council sitting as a committee of the whole—sitting day and night. As the result of that, a plan was devised whereby the property was revalued by experts. When revalued it was recapitalized, and by

its owning company leased to what was known as the Municipal Traction Co., a company gotten up with Mr. Johnson as its—I do not think he was president, I think he was the treasurer, probably, although he was mayor of the city at the time. I was city solicitor, and I was a member of the board of directors.

There were eight or nine persons in the company, and it was a company organized under the laws of Ohio, not for profit. Its obligation was to pay the bonded indebtedness, to pay enough money to produce 6 per cent interest upon the recapitalized value of the property as represented by its reissued stock, its new stock, and to keep the rate of fare as low as was consistent with those two objects.

The property was valued by experts, Mr. Goff and Mr. Johnson passing in public upon any dispute between the groups of experts representing the city on one side and the companies on the other. And finally a valuation was reached, which was about 50 cents on the dollar of the outstanding stock, making all the bonds good, but deducting the outstanding bonds from the total ascertained value, it left about enough to make 50 cents on the dollar for the stock. The road was then leased to the Municipal Traction Co., and the day after the Municipal Traction Co. took charge the employees struck for an increase in wages. The strike ran along for some little time, and then a referendum was called on the ordinance, which renewed the rights of these companies on condition of their making the lease; and in that referendum, by a very narrow majority, the people of Cleveland rejected the settlement ordinance.

That threw the whole thing up in the air, of course. It was then suggested—a suit was brought, I think—no, I guess not—it was then suggested that the whole case be put up to the Federal judge in Cleveland, R. W. Tayler, as arbitrator, to settle the relations between the company and the city. Judge Tayler took the valuation which had been made by Mr. Johnson and Mr. Goff, made some modifications of that based upon expert inquiries made under his own guidance, had a new ordinance drawn which left out the Municipal Traction Co. entirely, and allowed the Cleveland Railway Co. to operate its own property, and by the terms of the ordinance regulated and controlled their operation, fixed the value of the stock at, I think, 55 cents, a slight increase above what had been determined by the Goff-Johnson valuation. The company was then reorganized, its stock reissued on the new basis, the ordinance passed by the council, a referendum approved it, and the company then began operating under the revised ordinance.

Now that ordinance provides this: It is a privately managed railroad in the sense that the owners of the property itself, by the board of directors, its president—

Commissioner SWEET. Is that the one they are operating under now?

Secretary BAKER. That is the one they are operating under now—operate the railroad. The city is represented by an officer known as the city street-railroad commissioner, who, is by the terms of the ordinance, the technical adviser of the mayor and council. He has no supervisory power, no visitatorial power, but has an office in the offices of the company, which is supplied him by the company; all accounts and books of every sort are opened to his inspection, and he reports regularly to the mayor and council whatever he thinks worth

reporting. And the relations between the company and the city are conducted by the council and the mayor on the one side, advised by the city street-railroad commissioner, and by the company on the other side.

The ordinance provided for the consolidation of all the lines, those of the Con-Con and those of the competing system of roads known as the Forest City roads, which had been built in the earlier period of the conflict. The Forest City properties were taken in on the basis of dollar for dollar, because they were just newly constructed and there had been nothing but construction value placed in their expenditures. The Con-Con properties went in, I think, on the basis of about 55 cents on the dollar of outstanding stock.

The ordinance fixed the amount of outstanding stock and bonds. It authorized the issuance of stock and redeemed bonds as they became due. I think most of the bonds originally outstanding on the constituent companies have now been replaced by stock. There is probably a very small, if any, bonded indebtedness upon the property.

So that the revised value, based upon an appraisement of the property, is now represented by stock of the Cleveland Railway Co. of all the properties. That was fixed in amount in the ordinance; and thereafter, while we could not under the laws of Ohio prevent a corporation from issuing more stock—that is, a city could not prevent it—the corporation, having its corporate power derived from the State, could issue any amount of stock it wanted to issue. The ordinance provided that the company should have as its compensation for operation only enough money to pay the interest upon its bonds and the stipulated rate of interest upon \$16,000,000, if that was what the stock then was, and such additions to the \$16,000,000 as should subsequently be authorized by the city.

So, while we could not control the further issuance of stock, we limited the amount of return to the company available for dividends upon the stock. The whole scheme was based upon a 6 per cent dividend on stock; and if the company had issued more stock than it was authorized to by the ordinance, it would have had to cut down the dividends.

The ordinance provides that the entire earnings of the property from all sources go into a fund known as the interest fund. Into that fund at the beginning, \$500,000 was placed, which was part of the capital of the company. All earnings from fares, from advertisements, from services of one sort and another performed, rentals from interurban companies and package companies, all earnings of every sort go into the interest fund.

The ordinance provides then the order and amounts of things to be paid out of the interest fund. Operating expenses, of which I shall make further observation in just a moment, including insurance and taxes, wages and salaries, next bond interest, and last a sum which will pay the interest upon the outstanding capital at 6 per cent.

The operating expenses are divided into two kinds—one pure operation and the second maintenance. Operating expenses were limited to so much per car-mile, a certain number of cents per car-mile, which could not be exceeded; and maintenance was limited to a certain number of cents per car-mile. I have forgotten those figures at this moment, but my impression is in the first ordinance

pure operation was something like 11 cents per car-mile and maintenance something like 4 cents a car-mile, although they varied in different seasons of the year. Cleveland has a very heavy winter climate, and the cleaning of snow and all that sort of thing in the winter makes operating expenses high, and the heating of the cars; and in the summer season it is easier and cheaper to operate.

Mr. WARREN. I am told it is $11\frac{1}{2}$ cents from May to December and $12\frac{1}{2}$ the remainder of the period.

Secretary BAKER. That has been modified since then. There have been two or three modifications under that ordinance that have modified those figures.

Mr. WARREN. Those were the initial figures?

Secretary BAKER. Very likely. It is a long time since I have even thought of this subject, so that my recollection of figures, and perhaps of some details, is to be corrected.

Commissioner SWEET. I think it is remarkable that you remember as well as you do, with all that you have had on your mind the last few years.

Secretary BAKER. I have not thought of these things for four years—three years, at least.

Those sums go out of the interest fund in the order provided.

Now, we come to the rate of fare and the control of that.

A schedule of rates of fare was set up in the ordinance itself. The base fare of 3 cents is in the middle of the schedule, and a variation of fares is provided: 3 cents cash with 1-cent transfer, and it runs up to 4 cents, I think, cash, with 1-cent transfer. The schedule is unimportant, except that there are enumerated in specific lines, a, b, c, d, e, and f, these various grades, and as I recall it, 3 cents fare with what we call a rebated transfer of 1 cent is about the minimum. Operation was started on the basis of the 3-cent fare with 1 cent for a transfer.

The ordinance provides that whenever the sum in the interest fund which, you will recall, started out at \$500,000—whenever the amount in the interest fund, plus all accruals and less all proportionate deductions—that is, crediting to the fund the earnings that came in yesterday but have not been actually transferred to it, and taking out of it the proportionate amount which that fund would have to stand for all interest and dividends and operation charges; taking all those out—whenever the amount in the interest fund amounts to \$750,000—that is, \$250,000 more than it started with—the fare automatically goes down to the next lower rate of fare.

Whenever the amount in the interest fund, plus accruals and less charges, goes as low as \$250,000, the fare automatically rises to the next higher one.

So that the change in the rates of fare is automatic. There is no provision in the ordinance for literally free transfers. Under all circumstances, where a transfer is issued a cent is charged for it; but if the next lower rate of fare calls for a rebated transfer, then the man who pays the penny for a transfer gets the penny back when he delivers the transfer, the object of that being to prevent the frauds that are inherent in free transfers.

In a great many systems the free transfers run up to 40 or 50 per cent, and whole books of transfers are given away by conductors and other persons, and people have their own punches, and ride on these

transfers, and there is a tremendous loss. But when a conductor has to account for a cent for each transfer issued, all that is cut out.

Commissioner SWEET. Are you speaking of street railways generally or merely Cleveland, when you say that?

Secretary BAKER. Of course, I have always believed Cleveland to be better than any other city, and I assume that any evil that might exist there would certainly exist elsewhere.

Commissioner SWEET. If it is as bad as that in Cleveland, what is it in the rest of the country?

Secretary BAKER. I believe that the literally free transfer is probably the worst practice, the worst difficulty that the street railroads have to deal with. The problem does not affect only street railroads, but it affects the riding public. The man who uses a fraudulent transfer does not hurt the street railroad as much as he hurts the other passengers who have to pay for carrying him.

Commissioner SWEET. And hurts himself?

Secretary BAKER. Well, he must be pretty well hurt before he starts that.

That is the scheme upon which the fare started. We started out with a 3-cent fare and a cent for a transfer, and kept the cent. At the end of about a seven or nine months' period—I am misty as to the exact period, but some such period—the interest fund showed \$750,000, and the fare went down to the next lower, which was 3 cents with a rebated transfer. It has switched several times. It never went below a flat 3 cents with a rebated transfer, and never, until the war, went above 3 cents with the unrebated transfer, the charged transfer.

After the war came on, the cost of operation increased very largely, and a number of difficulties have arisen there, and the fare at present, I think, is 5 cents. It is according to the ordinance, whatever the provision is. I think it is 5 cents straight fare now.

That, in brief, is the history of the settlement.

There are two or three comments to be made about it. In the first place, it was a popular settlement, in the sense that the people of Cleveland understood it. I do not think it is possible for me to emphasize too strongly, so far as the expression of my own belief is concerned, the feeling that no street railroad settlement can be a successful one which is not understood in its details and approved by the people. It is one of the most intimate of their services, and they resent and distrust and suspect the management unless they understand.

The whole theory of the Cleveland settlement was, first, that the people understood all that had gone on in the past, and all that was proposed to be done, and had a continuous means of information as to the state of affairs, by the inspection of the city street-railroad commissioner's books and the publication, at short intervals, of reports from him.

The city street-railroad commissioner in Cleveland every month prints in the public newspapers the state of the interest fund, so that people can see whether it is going up or whether it is going down; whether there is soon going to be a change of fare up or down; and when the change comes, there is never the slightest question about it. The people have known, in advance, that they were approaching the period where the fare would go up or would go down, and it is accepted without the slightest hesitation or objection.

The great thing accomplished, therefore, in the Cleveland settlement was that it was accomplished with the intelligent and detailed comprehension and understanding of the people of the city; and the subsequent working of the ordinance has always been relatively easy because of the fullness of the disclosures made and the completeness of the information the public have on the subject.

Perhaps the most striking defect in the ordinance is the thing you would rather have me point out than anything else, and that is the lack of stimulus to the operators to operate economically.

We faced two problems in Cleveland: One was the control of the operation of the property—and perhaps I should put a parenthesis here, because I have omitted something that I ought to have said. The company was not permitted to spend any money for improvements or betterments or even for renewals and replacements without the consent of the city; if it wanted to buy 100 cars it presented to the street railroad commissioner the kind of cars it wanted to buy, the cost of the cars, the times of delivery, and he presented that to the council, and a resolution was passed authorizing the purchase of those 100 cars.

If they wanted to relay the rail on Central Avenue or on Woodland Avenue they had engineers estimate the cost of this work and those estimates when drawn up were presented to the city street-railroad commissioner and he had a group of experts in his employ and they went over it and found out, first, whether it was necessary, and second, whether it was economically proposed, and then it was approved by the council.

We were a little too hopeful about that ordinance in one aspect. We believed that the replacements could come out of the maintenance fund and we did not make a sufficient apportionment of the replacement cost to capital account. Our effort was to keep the capital account down.

I can illustrate what I mean by taking a single instance: If the company wanted to relay the rail on Woodland Avenue—let us assume that the rail was 10 years old, and that at the time of the settlement its life was only a prospective three years more. Plainly, correctly, when that rail was relaid the three years of lifetime left it at the time of the settlement should have been paid out of maintenance, but the nine years of expired life in that rail ought to have been paid out of new capital because it was valued on the basis of its depreciated condition; and there ought to have been an addition of new capital in the new rail to the extent of nine to three. We did not do that. And, as a consequence, the maintenance fund of the company was constantly being called upon to bear altogether too high a contribution for replacements of property which was nearly worn out at the time of the settlement, and which rapidly wore out when it was in use under the settlement.

That led to a resort by the company to the arbitration features provided in the ordinance, which were that every dispute of every kind between the city and the company, in the event of failure to agree between the company and the city, should be referred to arbitrators, one of whom should be appointed by the company, one by the city, and one by the district Federal judge or circuit judge of that community.

The company has had, I think, two or three arbitrations for the purpose of having the operation allowance increased to meet increased wage demands, and to have the maintenance allowance increased to meet either increased cost of maintenance or to overcome this insufficiency of maintenance allowance by reason of the failure to provide for apportionment to new capital of the replacements under the provisions of the ordinance.

We faced, at the outset, the problem of the complete control of the service and of the property in the interest of the public—which you see is reserved in this ordinance, because the company can practically do nothing without the consent of the council—and the alternative plan, which we knew as the Boston gas plan, of an increasing return on the capital invested as an inducement to economical operation.

We all put our heads to it, and we all tried to find some way to combine those two things; but it seemed illogical, when the city had complete control of operation and there was nothing left for stimulus to the management to do.

So we put in a flat rate of return on the capital at 6 per cent.

I think that was a mistake. I think there ought to have been a provision that the company should have $6\frac{1}{2}$ per cent as long as it continued to make enough money to operate a 3-cent fare flat, and that it should lose a half of 1 per cent upon its capital return when it had to charge an extra cent for a transfer, and that it should lose another quarter of a per cent when it had to go to the next higher, and that its rate of return should be based upon the fare which they were able to maintain. If there had been that inducement to the management to thrift and providence and economy, I think it would have been a better plan.

The CHAIRMAN. What would have happened, or what might have happened to the return under that provision if it had been continued in the abnormal conditions we now have, with the prices of supplies and of labor and material of all kinds constantly mounting?

Secretary BAKER. You mean the capital earning would have gone down without their fault?

The CHAIRMAN. Yes.

Secretary BAKER. That is perfectly true. That is exactly what would have happened. They are having an arbitration in Cleveland now. The company has come to the council and said that, in spite of all the management could do, they can not sell new stock on a 6 per cent basis; that 6 per cent does not mean as much now as it used to; and their stock is in the market, I think, at 97 or 98, and they can not sell new stock on a par basis; so they have come to the council and asked them to increase the 6 per cent allowance on stock dividends.

That is up for arbitration now; and I notice in this morning's newspaper, quite by accident, that the Federal judge has appointed a third arbitrator, and that many other questions between the company and the city are to be worked out by this arbitration board, with the strong likelihood that some such element as I have suggested will be injected into the ordinance giving them a slightly increased capital return, and perhaps making it contingent upon some economies that they are to effect under the guidance of these arbitrators.

Commissioner SWEET. But it is a fact that in times like the present the provision you referred to a few moments ago would not be operative—that is, the incentive to extra effort toward economy would not have any operation at all in times like this? There would be no opportunity, no matter what their economies might be, without a change in fare or some other help, for the company to get any benefit from their efforts whatever.

Secretary BAKER. That is true.

Commissioner SWEET. Still, at the same time, that is no argument against having the incentive there for normal times?

Secretary BAKER. I think you are perfectly right about that; and this additional statement can be made about it: Of course these times are abnormally abnormal.

Commissioner SWEET. Of course.

Secretary BAKER. So that the situation now is that the company comes to the council and frankly says: "These are completely abnormal times, and we can not meet them at all, and we must have a new arrangement on a particular point." And then they and the council try to work it out, and if they fail to work it out, it goes to arbitrators to settle the question, and the community understands the whole thing.

No matter what conclusion these arbitrators come to—it does not make any difference what conclusion they come to—their arbitration will be open, the public will be represented by suitably instructed and skilled advocates, the company will be represented in the same way, and their debate and the presentation of evidence will all be carried in the newspapers; and when the arbitrators come to decide that question, the people of Cleveland will be just as able to decide it as they are, and it is a 10-to-1 shot that the people will have decided it as the arbitrators do when they get through. It will be perfectly understood and accepted; and instead of being an acrimonious and hostile controversy between the company and the city, the ordinance provides a way of settlement which is sure to be mutually acceptable.

The CHAIRMAN. Is it your experience, Mr. Secretary, that the results of the arbitration are popularly accepted?

Secretary BAKER. Entirely so. There has been a little fretfulness about it. I represented the city when I was mayor, having been city solicitor and having drawn the ordinance substantially as it now is. I represented the city personally at the council table in the one arbitration that took place while I was mayor; and the newspapers with a gala spirit made some jests at the expense of the arbitration; but when they got through with it the public always accepted it without hesitation.

I think I have covered the Cleveland situation, unless there is some detail of it that you want to know about.

The CHAIRMAN. Have you any other suggestions to make, Mr. Secretary, upon the general problems before we take up the question of cross-examination?

You understand why this commission has been appointed?

Secretary BAKER. Yes; I know why this commission has been appointed.

Of course the street-railroad problem is essentially a local problem. I do not know what the National Government can do, either by way of advice—and certainly that is the only thing it can do—or in any

other way. The fact is that medicine for one community would be poison for another in this business.

It would be a very great mistake to have municipal ownership or public control, according to the Cleveland plan, either one, in a community which did not want it and did not understand it.

The street railroad problem, more than any I know, illustrates the truth of the general theory that the degree of civilization of any community is shown by its capacity for cooperation. And cooperation does not mean an impulsive, concerted action for a moment, but it means continuous cooperation. You see a lot of children out in an orchard, and they decide that they want to get a particular apple out of the tree. They all get together until they get the apple. As soon as they get the apple they fall out and quarrel about the division of it. True cooperation means the capacity to cooperate until they get the apple and through the long-drawn-out judicial process of its subdivision and enjoyment.

If a community reaches the state of mind where it understands how it wants to control a street railroad, and is willing to be patient and to endure through the difficult problem of its reorganization and management, that community has reached the place where public control, whether in the form of ownership or of public control according to the Cleveland plan, is acceptable. But if the people are going to take the street railroad over for public management because they are mad at the street railroad, and then get mad at themselves for having taken it over, as soon as they do it, then that form of management would not be a success, of course.

So that, to sum up what I think about it: The solution of a street railroad problem is essentially a question of popular education. It must be made satisfactory to the people of a community in order to be a permanent or valuable settlement.

I think the Cleveland plan is the best I know of anywhere in the world so far. It has some defects which can be modified out of it; but I think it is the best I know, and chiefly for the reason that it was understood in its making, and it is understood in its operation, and is controlled by the people whom it serves. I think the proof of its excellence lies in the fact that the stock of that company, while it has been a point or two below par, has for all these years been almost as steady as a rock, and none of the disturbances of materials and markets and wages and all the other things which have beset street railroad operations in this country generally have had any marked effect upon the Cleveland street-railroad properties since this settlement went into effect.

• I think that is the only general observation I care to make.

The CHAIRMAN. Primarily, the agitation in Cleveland was for a consolidation of the plants into one, was it not?

Secretary BAKER. No; I would not say that, Mr. Chairman. I think not, sir. They were practically all consolidated into one.

The primary thing in Cleveland was the management of the service by the people who were to be served, so that they could tell how many cars to run. The council in the city of Cleveland makes the schedule. It tells the management: "You must run cars on a two-minute headway at certain hours of the day on such and such lines, and you must cut that line here and turn it out and run it another way." The whole control of the service, the kind and quality of the

service, is determined by the representatives of the people in the council.

The CHAIRMAN. It is really municipal management of the service?

Secretary BAKER. Almost complete; except that it is done through the agency of a private corporation which owns the property, but can only get its pay for management by complying with the public regulations.

The CHAIRMAN. There has been a great deal of testimony here during the past two weeks reciting the difficulty of these street-railway interests all over the United States in meeting operating expenses on a 5 or 6 cent fare. What is there about the Cleveland situation that permits that company to operate on a 5-cent schedule to-day and meet all of its fixed charges and operating costs?

Secretary BAKER. Two or three things occur to me at the outset. In the first place, the capitalization of that company is a sound capitalization. It represents approximately its physical valuation. There is no franchise value left in it, or very little. They did capitalize the unexpired franchise value at the time the consolidation was made; but they capitalized it in a way that allows it gradually to disappear. So that there is very little capitalization of franchise value in it, and the money upon which they have to pay a return, or the value upon which they have to pay a return, is the value of the physical property; which is a very exceptional situation. I do not know of any city in America in which that is true except Cleveland. That is one thing.

Another thing, of course, is the fact that Cleveland has been a very rapidly growing city, and its lines of street railroad have been extended to meet that growth solely in the interest of service.

What I mean by that is this: There has been no competition between competing lines, and there has been no building for speculative purposes. When you have a privately owned street railroad, it sometimes happens—I do not mean that this is the usual thing, but it sometimes happens—that the persons who manage the railroad go out and buy large farms in the suburbs, and then they extend their railroad out to their farms and sell the farms cut up into building lots, and they operate the street railroad as a feeder to a real-estate venture. That has not happened in Cleveland, because the street railroad is operated in the interest of the people, and it has had no heavy losses in long hauls to sparsely settled communities, for the purpose of aiding real-estate speculation. That is a thing which has happened in a great many street-railroad enterprises, and it has not happened in Cleveland in a great many years, because this settlement has been going on for a long time.

Those two things undoubtedly helped somewhat to keep Cleveland on an even keel.

In addition to that, the equipment in Cleveland of the street railroads is most admirable. The cars are very large. Cleveland is a relatively flat city. It has not many very heavy grades, and the cars are large—very large. The cost of transportation in Cleveland, I should say, under normal conditions, is lower than in almost any other city of the country; certainly lower than any other city of its size with which I am acquainted.

Commissioner GADSDEN. Do you know anything about the relative density of traffic in Cleveland as compared with other cities? Is

it not true that the passengers per car-mile in Cleveland are very substantially greater than in most American cities?

Secretary BAKER. Oh, very much greater. But that would be a misleading datum unless you realized the size of the cars in Cleveland. I think the size of the cars in Cleveland must be twice as great as the size of the cars in Pittsburgh, for instance. I am speaking now from superficial observation.

Of course the car-mile density of the passenger traffic with the little car and the big car would be a very misleading thing to estimate.

The CHAIRMAN. Have you had many lines that extend out into unprofitable territory?

Secretary BAKER. Very little, I think.

The CHAIRMAN. Do you suffer from jitney competition? Have the Cleveland lines suffered from jitney competition?

Secretary BAKER. Oh, no.

The CHAIRMAN. They had the same difficulties from the automobile competition there as in other places, of course?

Secretary BAKER. Undoubtedly.

The CHAIRMAN. And that is a growing condition?

Secretary BAKER. Jitney lines have started in Cleveland, but never got anywhere. The distances are too great.

The CHAIRMAN. I presume, in view of the contract that exists, the municipal authorities as well as the public would not encourage the use of jitney service?

Secretary BAKER. No; I do not think so. I think the public attitude would be that they would give the jitneys a chance to show that they were better than the street cars, and if they were they could live. They would give them a fair show.

The CHAIRMAN. Then is the first fundamental proposition in all street-car questions that we must know what the true value of the property is?

Secretary BAKER. Absolutely. Absolutely and fundamentally.

The CHAIRMAN. That precludes overcapitalization and inspires confidence by the public in the integrity of the plan?

Secretary BAKER. Exactly.

The CHAIRMAN. Was that valuation in Cleveland made by the State or by experts selected by the city as well as the company?

Secretary BAKER. It was made by experts selected by the city and the company, and they worked in pairs. The city had a trackman and the railroad had a trackman. The city had a carman and the railroad had a carman, and so on with the power-house men, etc.; and they worked in pairs. Whenever they agreed, their agreement was reported to Mr. Goff and Mr. Johnson, and I do not recall a single instance in which they rejected an agreement of the two valuers.

Where there was disagreement, Mr. Goff and Mr. Johnson settled the disagreement in a public hearing.

The CHAIRMAN. Do you think that method of valuation is as satisfactory as to have it done by a State commission?

Secretary BAKER. That is two questions in one. There are some State commissions that would do it very well; there are some State commissions that would do it very badly, and there are some that would never get done. I made a calculation as to how long it

would take the State Commission of the State of Ohio to reach a case involving an electric-light controversy which I had sent down there, and it was something like 140 years before they could get to it.

The CHAIRMAN. But if the State commissions had their organizations so perfected that they could expeditiously value the physical property of the street-car company, do you think it would be preferable, or—

Secretary BAKER. I do not think it would be nearly so good as the system we have.

The CHAIRMAN. Why?

Secretary BAKER. As I said a moment ago, the street railroad is the most intimate service the people have in a city. I think it is so intimate that they regard it as their own, as distinguished from any State interests. I am inclined to think that there is a strong likelihood that a greater degree of confidence is inspired when the city itself does it than when the State does it.

The CHAIRMAN. Do you feel that the value that was established in Cleveland is fairly representative of the true value of the property?

Secretary BAKER. Of that property?

The CHAIRMAN. Yes.

Secretary BAKER. Very accurately; very closely. As a matter of fact, there are two or three items of half a dozen million dollars in there which should never have been put in there, in my judgment; but those are differences of opinion. For instance, Judge Tayler allowed, as one of the items which brought his valuation up from 50 to 55—if that is the change which was made—he allowed the value of some paving which the company had done in return for the grants which were given it. I do not believe paving was ever an investment value of a street railroad in Ohio. I think it was a concession made to the public for the grant, but I do not think it was a capital investment or should ever have been so regarded.

The CHAIRMAN. Does the valuation by the municipality in that way present the opportunity for municipal corruption?

Secretary BAKER. In the valuation?

The CHAIRMAN. Yes; the company has something to sell the city, really, and it is interested in having the value upon as high a basis as it can get it?

Secretary BAKER. Oh, yes. It does present it; but it presents it no more than it does when the valuation is to be made by a State commission.

The CHAIRMAN. Have you ever heard of any State commission that was subject to an influence of that kind?

Secretary BAKER. I never heard of it; but they are all human beings—they are all men. If a company were to start out to corrupt a judge who was judging its property, it would not, in my opinion, make very much difference whether he was a State or a municipal officer. That work can only succeed when it is done by men of the highest character and capacity, of course.

The CHAIRMAN. What is the real difference between the Cleveland plan and municipal ownership and operation? I understand what the technical difference is, but in its broad aspect as to service and efficiency and rates, what is the difference?

Secretary BAKER. I do not think there is any very substantial difference. I think that all of the operating advantages of municipal ownership are gotten by that plan.

Mr. WARREN. There is no recourse to the tax levy, is there?

Secretary BAKER. None.

The CHAIRMAN. There is no tax levy?

Mr. WARREN. I say there is no recourse to the tax levy.

Secretary BAKER. If there is a deficiency of earning, there is no way to make the taxpayers pay it.

Commissioner SWEET. And under municipal ownership there would be?

Secretary BAKER. Undoubtedly.

The CHAIRMAN. From your study of the street railway questions, do you feel that the Cleveland plan could be safely adopted in many of the communities of the country?

Secretary BAKER. In such communities of the country as were ready to study it and understand it and give it their real approval, it would be a very great advantage; but any momentary fascination with the Cleveland plan which led to its adoption without a fundamental appreciation of it and determination to stand by it and see it work would, of course, be unadvisable.

The CHAIRMAN. Has the service in your city been better since the contract was made than it was before?

Secretary BAKER. Very much better; but that would be misleading, because we were in a state of war before, and the companies were not giving as good service as they would have given if they had been operating under long-term grants which gave them an assured tenure.

The CHAIRMAN. Is the penny transfer satisfactory to the people?

Secretary BAKER. Perfectly.

The CHAIRMAN. Does not that make for discriminations between employees and others traveling the same distance to their business?

Secretary BAKER. There is a discrimination, of course, but it is a sound discrimination. The company performs an extra service for the man who rides on two of its cars rather than on one. It stops for him twice instead of once. It identifies him twice instead of once. All of its accident hazards are multiplied by his being on the cars twice instead of once. It provides extra service for him, for which he ought to pay.

The CHAIRMAN. I presume that question has been largely debated and discussed in Cleveland?

Secretary BAKER. Oh yes. It is a perfectly popular thing to charge for the transfer.

Mr. WARREN. Are most of your lines radial, as a matter of fact, so that if a person uses a transfer it is ordinarily giving him the benefit of two rides?

Secretary BAKER. You mean a round-trip?

Mr. WARREN. No; but he goes to the center, and there uses the transfer to go out from the center.

Secretary BAKER. A very great deal of transferring is done at the center. There is a center in Cleveland, known as the Public Square. Most of the long radial lines reach the square; but that system of radial lines is intercepted by three or four cross-town

lines which circle like belt lines, and transfers are given on all of those.

Mr. WARREN. But the discrimination between the transfer and nontransfer passenger does not exist as markedly as it would in the case of some cities where some of the lines run through from one side to the other of the city, so that the passenger makes his complete ride on one car, while other lines run to a center and stop, and a passenger wishing to go across in that direction would have to use two cars?

Secretary BAKER. I realize what you mean. I could not answer you as to what the present situation is. The routes are changed very often. At the time of the consolidation most of the lines ran clear through from the east side to the west side; an east-side line and a west-side line had been joined, and ran clear through, and they were broken at the square, and required a transfer in the center of town. I should say perhaps the majority of the lines now require the transfer in the center.

Mr. WARREN. To get across?

Secretary BAKER. Yes.

The CHAIRMAN. Do your Cleveland lines extend beyond the domain of the city?

Secretary BAKER. Yes.

The CHAIRMAN. Do they go to other villages?

Secretary BAKER. Yes.

The CHAIRMAN. Does the Cleveland plan extend throughout the whole length of the lines?

Secretary BAKER. No. They have ordinances in those villages and operate under those ordinances; but their ordinance with us requires that we shall accept no new grant or no renewal of existing grants which the city of Cleveland does not consent to; so that as soon as they have worked out their relations with these outlying villages, they can accept no new grant which will impose a burden upon the city—and most of them do impose a burden upon the city.

The CHAIRMAN. It seems the same corporation may have different standards of service, different kinds of rates and different kinds of management in as many cities as it may be operating through?

Secretary BAKER. Not in Cleveland. It might if there were any very large cities near by.

The city of Lakewood on the west side is a city of perhaps 30,000, and is just like the rest of Cleveland. You would not know that you were going out of one place and into another.

On the east side of the city is East Cleveland, which has 18,000 or 19,000 people, I suppose. Those are the two principal ones. The lines which operate in them operate under franchises which were granted long prior to this settlement. But it is the same kind of service—the same cars, the same frequency of schedule is maintained, for the most part, and the service is identical in everything except fare.

The CHAIRMAN. Do you believe that where a company extends through two or more villages and also out into suburban territory that it would produce greater harmony and more uniform service if the State itself fixed the rate and had control of the service?

Secretary BAKER. No; I think that would create a riot in Cleveland; if the State of Ohio undertook to fix the street railroad rate in the city of Cleveland, I think it would create a riot.

The CHAIRMAN. That may be so in Cleveland, because the question has been so thoroughly debated there; but as a general proposition, do you think that would naturally follow?

Secretary BAKER. No; I do not think so, as a general proposition. I think as a general proposition the State commissions have won the confidence of the communities, and they are adequately manned and officered to perform their duties and get the job committed to them done fairly expeditiously. Many of the State commissions have had on them men of very high character—statesmen. A great many of them are doubtless known to you as they are to me. In States like that, I think probably the State's undertaking to adjust would be accepted by the public generally. It would not in Cleveland, in my judgment.

The CHAIRMAN. Have you given—of course, you have—consideration to an effort to secure cooperative regulation between the cities and the States?

Secretary BAKER. No; I have never heard of that suggestion. There has been no difficulty, as a matter of fact, in Cleveland with the outlying municipalities—no serious difficulty.

The CHAIRMAN. It has been suggested from some sources that it might be a good plan to give the city in the first instance the right to prescribe rates of fare and also service regulations and extensions, subject to the right of appeal to the State commission, thus appealing to another technical, scientific body, rather than to a court.

Secretary BAKER. I should be very much opposed to that for Cleveland.

The CHAIRMAN. Why?

Secretary BAKER. Because I think the responsibility for the management of its own affairs is the greatest educational influence that the city of Cleveland has; the fact that the people of that city have studied and grasped and solved an intricate and complicated problem like the street-railroad problem has made it a more self-conscious and a stronger, more virile people than they were before that problem was put up to them; and I should be very sorry indeed to see the responsibility for the management of their own affairs in as intimate and important a matter as street-railroad service taken away and transferred to a State agency.

The CHAIRMAN. Would it be taken away if there were simply a right of appeal by the aggrieved party to the State?

Secretary BAKER. Oh yes. The appeal would be control. Their original dealing with the problem would not even make a prima facie case.

The CHAIRMAN. There are a great many communities that have not made the intensive study of this subject that you have at Cleveland?

Secretary BAKER. Certainly.

The CHAIRMAN. And they are perhaps ill qualified to meet the problems in a satisfactory way. Would it be well to have those people depend upon the State?

Secretary BAKER. Yes; I think as long as they are in need of that sort of assistance it would be a good thing for the State to give it to

them; but the attitude of the State should be constantly that of education for self-help rather than the substitution of the State agency in local concerns.

The CHAIRMAN. Then, in your judgment, the street-railroad problem is one of purely local concern and there should be different conditions in the different States?

Secretary BAKER. Yes. I can imagine the cities of Cleveland and Cincinnati having entirely different problems. As a matter of fact they do have; very different.

The CHAIRMAN. Do you think it is possible, Mr. Secretary, for the country to adopt some general franchise scheme which will operate generally throughout all of the cities and villages?

Secretary BAKER. No; I do not think so. You mean a kind of uniform street-railroad law, to be recommended to the various cities?

The CHAIRMAN. We have our uniform bill of lading, we have uniform demurrage, we have uniformity in a number of things. Is it not possible to have more or less uniformity in the street-railroad franchise?

Secretary BAKER. I should not think so.

The CHAIRMAN. Might there not be as to the length of the franchise, for example?

Secretary BAKER. I do not see what business it is of the State of Wisconsin what the length of the franchise is in Ohio.

The CHAIRMAN. Not at all. That is true. But if it could be demonstrated that an indeterminate permit was the most satisfactory form of franchise, could not that be accepted throughout the country?

Secretary BAKER. If you could demonstrate it; but I do not think it is susceptible of demonstration.

The CHAIRMAN. If it could be shown that the cost-of-service plan, with certain modifications, might be the best thing for the community and for the utility, would it not be fair to make that recommendation to the public?

Secretary BAKER. Anything that you can demonstrate to be better than anything else that has been suggested would be wise to recommend for universal adoption; but those demonstrations are impossible, in my opinion.

The CHAIRMAN. Then do you believe that this commission ought not to make any recommendation as to franchise conditions?

Secretary BAKER. I do not want to be put in the position of suggesting what this commission ought to do.

The CHAIRMAN. We are asking for your judgment.

Secretary BAKER. The commission will undoubtedly do what seems wise to it. I can only express my opinion. I would not undertake to express an opinion of my own that the city of Red Bank, in South Dakota—if there is such a place—should have the same length of franchise, or the same conditions of franchise, as the city of Chicago, Ill.

It seems to me the problems are so essentially different that it would be quite impossible for me to put them in the same category as to length of franchise.

The CHAIRMAN. You have discussed the question of efficiency of service under your plan, and you admitted that there was one defect in your contract?

Secretary BAKER. I think there are a good many. That is the chief one.

The CHAIRMAN. That was the chief defect?

Secretary BAKER. Yes.

The CHAIRMAN. Do you believe that would be taken care of entirely by the provision which you suggested—of having a reduced return on capital as the rate of fare goes up?

Secretary BAKER. I am not sure. We thought about that a very great deal, and found it so difficult a problem that we left it unsolved, as you see.

The CHAIRMAN. I can see where that might operate very effectively upon the owner of the stock, and perhaps the officers of the corporation, but how is that going to influence at all the conduct of the employees?

Secretary BAKER. I do not know that it can, unless it stimulates in the management a cooperative spirit which will find its response in the operator.

The CHAIRMAN. So that it must work from the top down?

Secretary BAKER. I should think so.

The CHAIRMAN. Is there any way that you can work out a plan by which you can get the real initiative and efficiency throughout the whole personnel of the company?

Secretary BAKER. I have no plan in my mind.

The CHAIRMAN. There has been a good deal of discussion of late about the Plumb plan. Are you familiar with that?

Secretary BAKER. I have read about it in the newspapers. That is all.

The CHAIRMAN. Would that apply in the city of Cleveland?

Secretary BAKER. I do not know that I know the Plumb plan well enough to express any judgment about it. In effect, what you are asking me is whether I think the operatives would be stimulated to greater zeal and activity if they were represented in the management. That is, in effect, what you are asking?

The CHAIRMAN. Yes.

Secretary BAKER. I can imagine that being a very effective way of producing cooperation on the part of the worker. I can see no insuperable objection to it in the Cleveland contract. That is, it might very well be a wise addition to make to that ordinance.

The CHAIRMAN. At the present time, of course, the officers of the company are selected by the stockholders; are they not?

Secretary BAKER. Yes.

Commissioner SWEET. You are certainly familiar with the general street-railway situation throughout the United States, I have no doubt; are you not, Mr. Secretary?

Secretary BAKER. I used to be.

Commissioner SWEET. Now, at the present time you know that their incomes are not sufficient, as a general rule, to pay their expenses—even their operating expenses?

Secretary BAKER. Undoubtedly, that is true.

Commissioner SWEET. You are aware of the fact that labor, which constitutes over 50 per cent, I think, as a general rule, of the expenses of the street-railroad company, is demanding and receiving very high wages—very much higher than in normal times, at least double in some cases, and in some cases more than double; and that all ma-

materials that go into the equipment of a street railroad are exceedingly expensive as compared with prewar prices? You know that; do you not?

Secretary BAKER. Yes.

Commissioner SWEET. And you know that the nickel of to-day has not the purchasing power of the nickel of four or five years ago; do you not?

Secretary BAKER. Certainly.

Commissioner SWEET. And that that, in itself, aside from newspaper reports, or what you might hear, or the testimony of street-railroad men, would lead you, with your knowledge of that business, or any other business, to look for trouble; would it not?

Secretary BAKER. Yes.

Commissioner SWEET. You would wonder how a concern, how an enterprise or an industry could live, paying such tremendous expenses, and with no ability on its own part to materially increase its income?

Secretary BAKER. Yes.

Commissioner SWEET. You made a very careful study of this situation, as the solicitor of the city of Cleveland; did you not?

Secretary BAKER. Yes.

Commissioner SWEET. You have given Tom Johnson the credit of the so-called Cleveland plan, if I understand you right?

Secretary BAKER. Entirely.

Commissioner SWEET. But I understand that you were quite closely associated with him in working out the details of that plan; were you not?

Secretary BAKER. Our association was very intimate and constant.

Commissioner SWEET. Is there any one living now, Mr. Secretary, who was closer to Tom Johnson or had more to do with him in working out this plan than you had?

Secretary BAKER. I think not.

Commissioner SWEET. Then of all living persons you probably can give us at least as much information as any one on the subject of the Cleveland plan?

Secretary BAKER. I think I could.

Commissioner SWEET. And what you have given us, what you have said about it, has certainly been very interesting; and as a Federal official at the present time, and interested, as I think you always have been, in the general welfare of the country, is there not some way in which, in your mind, the cities of the country that are now struggling with this problem and are face-to-face with perhaps the loss of street-railway service, or receiverships or bankruptcy, if you please—can you not suggest some way, as the result of your interest and study of this subject in Cleveland, by which the cities in general could be helped in solving this problem?

Secretary BAKER. Well, so far as my own experience is concerned, Mr. Sweet, I think that the only solution that will be permanently helpful will be one which the cities will work out with the companies themselves.

If I were asked to advise Philadelphia or Pittsburgh or Chicago or New York or any other city about the solution of its street-railroad problem I would say, "Get the council and the board of directors in the same room, with all the facts and all the figures, and let every-

body in the community understand what they are." I believe that any community in America will pay cheerfully and willingly whatever rate of fare is necessary to carry people on their street railroads and to maintain good service in their communities, if they are sure that they are paying only proper operating expenses, proper maintenance and a proper return on capital. As soon as they are sure of that, I believe that any community in America will pay whatever rate of fare is necessary.

Commissioner SWEET. You lay great stress upon the education of the people?

Secretary BAKER. Undoubtedly, sir.

Commissioner SWEET. As a result of the conditions that have obtained through Cleveland, by referendum votes and speeches and talks and newspaper articles and various means of education, the people have been thoroughly interested in the subject and have become well informed on the subject?

Secretary BAKER. Yes.

Commissioner SWEET. Is there not some way we can do that for all the cities of the country, or for most of them?

Secretary BAKER. Of course that is the answer.

Mr. Frank Walsh, of Kansas City, came to see me once when I was city solicitor of Cleveland, and said that Mr. Johnson had sent him to me to learn something about our Cleveland street-railroad situation.

I said to him, "I am going to court at this moment, and I can not see you until I get back; but if, in the meantime, you will go down to the Public Square and pick out the most unlikely looking citizen on a bench there, and ask him about it, and then come back to me after that, I will tell you what he has not told you."

When I got back from court, Mr. Walsh came in and said: "I don't think there is anything you can add to what he has told me. I picked up a fellow with a broken hat and worn-out looking shoes and of a generally unpromising aspect and asked him about the Cleveland street-railroad situation, and he told me its history from the beginning until now. I even know the nicknames by which the officers of the companies are called."

He said that he thought I could add nothing to the information that had been given to him; that that man was able to discuss even the legal questions, and what the courts had decided in the 51 injunction suits.

Commissioner SWEET. That was simply because, starting in a fight that interested the people, and progressing along with referendum votes that the people had to express themselves on, and the various steps, the people had become thoroughly familiar with all angles of the subject?

Secretary BAKER. Yes. Mr. Johnson had a circus tent—two of them, in fact—and he used to take this tent around over the city and put it on vacant lots, and Peter Witt, who is now a street-railroad expert, had to make a speech about 40 minutes long on the general problem of street railroads and then, as city solicitor, I spoke generally about an hour, discussing the legal aspects of it, and the latest decisions of the courts, as to why the courts decided it that way, and what our adversaries said and what we said on the legal questions, and then Mr. Johnson would end with about 30

minutes answering questions from anybody on any subject—whether on the subject of street railroads, or not; any question that anybody wanted to ask him.

That went on for weeks, and months, and years; and as a consequence everybody in Cleveland went, and became familiar with these matters. The women went with their baby coaches and pushed them up in the vacant space in front of the platform and left the baby there while they sat back and asked Tom questions.

Commissioner SWEET. That kind of an educational campaign would hardly be practicable, of course, but—

Secretary BAKER. I do not think we could inaugurate that.

Commissioner SWEET. That could not be done to meet the present situation?

Secretary BAKER. No, I think not.

Commissioner SWEET. But the publicity which you have referred to, it seems to me, is one feature of the case that can be immediately met.

Secretary BAKER. I think it can. I think your commission, for instance—and I speak with very great deference; but the chairman asked me a question and you have repeated it in another form—I think your commission could serve a very useful purpose by saying, so that everybody might understand it, that the problem of the street railroad is a problem of justice to two interests: The owners of the property and the public whom it serves—the owners and operatives of the property and the public whom it serves; that justice can not be done by haphazard, but must be done on ascertainment of the facts, and if any city has a problem affecting its street railroad, if it will sit down judicially and learn all the facts to start with, it will have the very best start possible toward ascertaining a solution of the problem.

Commissioner SWEET. Then, I judge, you think that the first step for a street-railroad company that is facing bankruptcy or a receivership would be to lay its cards down face up on the table?

Secretary BAKER. Surely.

Commissioner SWEET. And invite inspection by the public?

Secretary BAKER. Yes.

Commissioner SWEET. And through the newspapers and perhaps public meetings and in every way possible to bring the public in that community to a realizing sense of the fact that nothing is being held back?

Secretary BAKER. Yes.

Commissioner SWEET. And that everything is aboveboard and that the interest of the public at least equally with the interest of the stockholders of the company is involved?

Secretary BAKER. Exactly.

Commissioner SWEET. Because if nothing is done, they are not going to have the facilities of the street railroads; which would, of course, be a disaster in every community.

Secretary BAKER. Yes. I have in mind a street-railroad situation in which the receipts of the company are not equal to their operating expenses, leaving nothing for interest on their bonds or dividends on their capital.

Commissioner SWEET. I think there are a great many such instances as that.

Secretary BAKER. Of course, no community, if it understood that situation, would be willing to have it so.

Commissioner SWEET. Of course not.

Secretary BAKER. All that is necessary for that company to do is to carry its case to the people. The council will not deal with it unless the people are back of them.

The CHAIRMAN. Apply that thought of yours to the Boston situation. They have raised fares to 10 cents, and people are not riding, and Gov. Foss has stated that they are running short \$4,000 a day. Evidently the people are not willing to pay 10 cents to ride, and therefore the company is losing money.

Secretary BAKER. They have gone beyond the point of maximum return.

The CHAIRMAN. What is the solution there?

Secretary BAKER. I do not know the Boston situation. I do not know the Boston situation well enough to answer that question. They have in Boston a lot of terminal subways that have added very greatly to the cost; have they not?

Commissioner SWEET. Yes; that is one trouble. But, Mr. Secretary, this idea suggested by the chairman, of maximum income, which is not necessarily the same thing as maximum fares, but the highest point to which fares can be raised without materially diminishing patronage, so that the highest amount of revenue can be attained—that undoubtedly, as I see it, would be different, very different, in different communities; would it not?

Secretary BAKER. Undoubtedly

Commissioner SWEET. And would depend very largely upon this very matter of education which you have referred to.

Secretary BAKER. Yes. But there is no reason for any mystery about it. We tried out that question in Cleveland, of the point of maximum return for the fare, and the way we did it was to experiment. We got the people together in the tent, and in the newspapers the matter was explained that we were going to work to operate the road this week at 3-cent fare, with no charge for a transfer, and then the next week we are going to charge for a transfer, and then we are going to operate at a 5-cent fare. So don't be surprised if you see the fare change. We are experimenting, for your information, to see what the point of maximum return is. And we made a number of those experiments.

Commissioner SWEET. And the result of your experiments was finally expressed, I suppose, in your Cleveland plan, largely?

Secretary BAKER. It has its ultimate answer there; but the experiments were carried far enough to show that we could succeed with the experiment, but without getting definite results for other reasons.

Commissioner SWEET. The street railroads of Cleveland are taxed?

Secretary BAKER. Yes.

Commissioner SWEET. They pay regular city and county and municipal taxes upon their physical property?

Secretary BAKER. Yes.

Commissioner SWEET. Is the franchise taxed?

Secretary BAKER. No.

Commissioner SWEET. Is the income taxed?

Secretary BAKER. No. It may be under Federal law, but not local.

Commissioner SWEET. Are they required to do paving between the tracks and for a short distance outside?

Secretary BAKER. They are required on all new paving—that is, on all streets not previously paved, where they make extensions, or in a street in which they have tracks which has not been previously paved—they are required to pave between the rails on each track and the strip outside, and are required to keep up the pavement, and they make any repairs; but in the case of repaving they are not required to pay the cost of repaving.

Commissioner SWEET. Is that a burden which they should be required to bear?

Secretary BAKER. I do not think they ought to pay it at all.

Commissioner SWEET. You regard it as sort of a heritage of the old horse-car days, where there might have been some justice in the start?

Secretary BAKER. I think there was a justification in the days when the horse cars were there, because they consumed the pavement.

Commissioner SWEET. You recognize that as a burden that ought to rest either on the abutting owners of the property or the whole community, removing the burden from them to the riders on the street railway.

Secretary BAKER. Exactly.

Commissioner SWEET. And in that respect it is unjust as between the different elements of the community?

Secretary BAKER. Yes. A street railroad put into any street very greatly enhances the value of the adjacent property, and I think that enhancement ought to bear the burden.

Commissioner SWEET. And you would place that burden on the abutting owners?

Secretary BAKER. I would divide it. I would not take more than the enhanced value.

Commissioner SWEET. But as between the general public which would include the owners of automobiles, autotrucks, and all that sort of thing, and the street-car riders, you would rather place the burden upon the whole than you would upon the street-car riders alone?

Secretary BAKER. I would very much rather have it paid by taxpayers than by street-car riders.

Commissioner SWEET. Absolutely. Now, then, if it were necessary to put it upon either one class or the other, if we may use that term—either the automobile owners and truck owners and the street-car riders—which of those two classes would you put it on?

Secretary BAKER. I would not put it on either one.

Commissioner SWEET. I know, but if you had to put it on either one.

Secretary BAKER. I think there is a little more justification for putting it on the automobile riders than the street-car riders.

Commissioner SWEET. They get more use out of that pavement, do they not?

Secretary BAKER. Yes.

Commissioner SWEET. Is there any form of conveyance or transportation in a city that does less harm to the paving than the street-railroad cars?

Secretary BAKER. Well, it does some harm. It is very difficult to keep tracks in such condition that they do not work up and down and work the pavement loose. They do some harm to the pavement. They are all laid on ties and as soon as a track begins to get a little soft, the tie jumps and pushes out stones or bricks or the concrete surface, so that they do some harm. I would not say which does the most harm, whether one class or another.

Commissioner SWEET. I was referring more to wear than I was to those changes which might occur from the influences you speak of.

Secretary BAKER. Of course they do wear.

Commissioner SWEET. Of course, if the pavement is in any way broken or loosened by reason of the flexibility of the track it would seem to me that the street railway ought to repair it the same as they repair their tracks, and I think it ought to be so, but I was thinking more of the wear and tear of the traffic.

Secretary BAKER. Of course, there is no wear on the street surface by a street-car.

Commissioner SWEET. At a time like this when the street-railroad companies are up against it as they are at the present time, do you not think there ought to be a public awakening on this subject of taxation, and especially of paving, because that, we have been told here, amounts in the whole country to millions of dollars every year.

Secretary BAKER. It does amount to a very large sum. I think it is very wise to call the public's attention to the changed conditions under which paving taxes and requirements are now made.

Commissioner SWEET. I wish I believed with you that the decision of this commission would be accepted generally throughout the country at 100 per cent and acted upon, because I feel that the information we have been getting ought to enable us to arrive at facts that could not be disputed, that are really good for the country to know and for the different cities of the country not only to realize but to act upon. Whether that is possible or not I am not sure. As you said, a Federal commission has no power in a matter of this kind except to advise and recommend and report its findings of fact.

I am very glad to note that the general public must be getting a great deal of the testimony such as yours here to-day. That ought to be very helpful. We have had from some of the best-informed and biggest men of the country—Mr. Edison and others—statements on this subject that it is good for the people to hear and for them to know; and a great deal of publicity has been given to these things; and from that point of view it seems as if perhaps before we reach a conclusion the general public ought to be much better informed than it was before, by reason of these hearings.

Secretary BAKER. The problem is so intricate and goes back so far it is difficult to find a place to tie on to it. I have in my mind—I will not name it—a street-railroad system which was rebuilt and rehabilitated under a settlement ordinance where, in my judgment, the cost of rehabilitation was enormously too high, and yet that was done under the sanction of public authorities. Now, that imposes a permanent burden on that community. And I think if your commission were to point out the fact that in the rehabilitation of property and in the making of extensions and new additions to street-railroad properties and the purchase of equipment, throwing away equip-

ment before it is really obsolete—when it simply has ceased to be pleasant as a matter of taste and all that sort of thing—that all of that is wasteful and adds to the general burden which, in the last analysis, gets back to the car rider—now that sort of counsel of prudence to economy in reconstruction and rehabilitation and use of equipment and maintenance of property would, I think, be a very helpful thing to say to a great many communities of this country.

Commissioner SWEET. Do you think that the general public realizes that the car rider is the one who pays for this paving?

Secretary BAKER. I doubt if it does, because it took us a long while to realize it in Cleveland. We had to say it a great many times.

Commissioner SWEET. You think the car rider does practically pay that and all other expenses of the company without the general public realizing it?

Secretary BAKER. Yes.

Commissioner SWEET. Would it not be mighty helpful to the general public and to a solution of the whole question if the general public could realize it?

Secretary BAKER. I think so.

Commissioner SWEET. And realize that the street-car is the poor man's carriage and that that is the part of the community which is the least able to bear heavy burdens probably; is it not?

Secretary BAKER. Yes.

Commissioner SWEET. What do you think about the form of indeterminate franchise with the power reserved to the city to purchase?

Secretary BAKER. I think the indeterminate franchise with the right to the city of acquisition and proper regulation is the only scientific form of franchise.

Commissioner SWEET. Absolutely. You think that is better than a very long term or any term?

Secretary BAKER. Very much better than any fixed term.

Commissioner SWEET. And you think the public is amply protected by that form of franchise?

Secretary BAKER. I think so, if the rest of the terms are properly drawn. Of course, the Cleveland franchise, by the way, is not an indeterminate franchise; it is a 25-year franchise—you know that.

Commissioner SWEET. But there is an automatic form of extension, is there not?

Secretary BAKER. Not quite. There is a provision in it that during the first 15 years of a 25-year period all of the controlled features of the ordinance are operative, the city has the right to pass a renewal ordinance in identical terms with the existing ordinance which the company must accept at any time during that 15 years, and if the city does pass it, that starts the operation of a new 25-year period. If the city fails to pass such a renewal during the first 15 years of any grant, then whatever remains of the period, the 10 years—or such time as elapses until the city does pass the renewal—is operated by the company without the regulatory features of the ordinance applying.

Commissioner SWEET. But you would prefer to have it indefinite?

Secretary BAKER. We could not under the Ohio law, and with 25 years as maximum.

Commissioner SWEET. But you would rather have it indeterminate?

Secretary BAKER. I would rather have it indeterminate.

Commissioner SWEET. You are somewhat familiar with the Cincinnati Street Railway situation?

Secretary BAKER. I have not seen the Cincinnati Street Railway recently. I used to know about it years ago.

Commissioner SWEET. Are you not aware that a plan modeled somewhat after Cleveland has been adopted in Cincinnati?

Secretary BAKER. I have heard that.

Commissioner SWEET. With a director, as they call him in Cincinnati, representing the public. What is the representative of the public called in Cleveland? Superintendent?

Secretary BAKER. No; he is the—

Mr. WARREN. Commissioner.

Secretary BAKER. The city street-railroad commissioner.

Commissioner SWEET. That is a single individual?

Secretary BAKER. That is a single individual.

Commissioner SWEET. Appointed by the mayor?

Secretary BAKER. Appointed by the mayor, confirmed by the council, as I recall.

Commissioner SWEET. Confirmed by the council, I think; and he is the go-between, he is the spokesman of the public—supposed to be—or the connecting link between the operator of the road and the council; and, of course, the council, strictly speaking, represents the public. That would be a more correct statement; would it not?

Secretary BAKER. Yes.

Commissioner SWEET. If Cincinnati could work up a plan somewhat based on the Cleveland principle, I do not see any reason why other cities could not, even in a comparatively short time, if the railroad companies present all the facts and satisfy the general public and their own communities that they are playing fair, that they are concealing nothing, and that they want to recognize the two interests that you have spoken of—the people who have invested their money, the operatives on the one side and the general public on the other. Now, if the people could be convinced of that I do not see why any community could not adopt a plan somewhat similar to this, if they wanted to.

Secretary BAKER. It is the indispensable prerequisite.

Commissioner SWEET. And that is the education of the people, their complete knowledge of it?

Secretary BAKER. Yes.

Commissioner SWEET. But sometimes people get an education without going to college; do they not? Is it not possible for—

Secretary BAKER. Most of us get most of it after we have been to college.

Commissioner SWEET. Absolutely. Now, is it not possible that, in the present emergency, with great trouble staring them in the face that the necessary education might be obtained by a community in a very short time?

Secretary BAKER. Yes.

Commissioner SWEET. Do you think that referendum votes are necessary on a subject of this kind?

Secretary BAKER. I do not think they are necessary. I think they are very desirable.

Commissioner SWEET. They have a very great educative value.

Secretary BAKER. Very great.

Commissioner SWEET. And you would recommend—whatever plan might be adopted by a city—that it be referred by referendum to the voters of the city?

Secretary BAKER. Whenever it is legally possible. Of course, the referendum is not universally possible in this country, but wherever it is legally possible, I think the value of a referendum is very great—its moral value is very great.

Commissioner SWEET. And, if I understand you right, you think a large part of its value would consist in its permanency—that is, the permanency of the plan that might be adopted, the satisfying of the people who feel, no matter what was adopted, that it was their plan, and they would give it a fair show. Is that it?

Secretary BAKER. Yes. In fact, in Cleveland nobody, even the wildest talker, has ever suggested the overthrow of the Cleveland street railroad ordinance, because it was adopted by the vote of the people. That is fixed. Everybody starts saying now, "That much we did; that much we are bound to."

Commissioner SWEET. Do you know, Mr. Secretary, of any city in the United States that is less affected by war prices and present conditions than Cleveland in its street railways?

Secretary BAKER. Oh, no; I do not. I should say it was the least of all that I know anything about.

Commissioner SWEET. You attribute that to what you call the Cleveland plan of operation; do you?

Secretary BAKER. Yes.

Commissioner SWEET. You think that, if other cities had gone through the same process of education and the public felt the same way about it and had adopted the same plan, you would get the same results in other cities?

Secretary BAKER. I should think so, Mr. Sweet. It just occurs to me—take the Cleveland situation—as the price of wages went up, and of materials, the rate went up in Cleveland so that there was a constant attempt on the part of the rate to assimilate itself to the needs of the company. They finally got to the place where the maximum rate permissible under the ordinance was not enough, and they went to the council and told them so, and the council said, "We realize that on the figures you have presented." And they authorized a higher rate temporarily than the ordinance permitted. In other cities they had adjusted their operations to a fixed rate of fare, and could not get anywhere at all, as the increase went on in their operating expenses, and their catastrophies and calamities have been precipitated until they all came at one time, while Cleveland simply had the little bump at the top of the hill where it had to pass over, where its highest rate of fare would not pay operating expenses.

Commissioner SWEET. If it should be necessary in the course of the next year or so—we do not know what is ahead of us—to go higher and higher, would you, from your knowledge of the situation in Cleveland and the balance of the country, judge that the point of highest revenue would be at a higher point of fare in Cleveland? In other words, that the people of the community would be satisfied with paying a higher fare if it was necessary to do so without any resentment such as is felt in any ordinary community?

Secretary BAKER. They are perfectly satisfied; they will pay whatever is necessary to carry them where they want to go, because they

know they are only paying a stipulated return and stipulated wages. But I do not believe, personally, that a rate of fare higher than 5 cents is economically justifiable—that is, I do not think it is the point of maximum return if you charge anything more than 5 cents. When people have to break a 10-cent piece to pay the fare they move to a place nearer their work so they will not have to pay it.

Commissioner SWEET. Would not the ticket system somewhat remedy that objection?

Secretary BAKER. Well, that is bad on principle. A cash fare is better to everybody concerned. But I do not think it would make very much difference. I think any rate higher than 5 cents as a cash fare would have very shortly the effect of redistributing the population of the community so as to avoid paying it and would bring down the use of the service. Now, that may be wise and may not be. Personally, I do not think it is.

Commissioner SWEET. Do you believe in the zone plan of charge?

Secretary BAKER. Yes, I have always believed in the zone plan of charge. I think that the payment that one makes to a street-railroad company ought to be for the service rendered him, as near as it can be. I used to argue with Mr. Johnson about that, and his objection to it was that you would have to have a bookkeeper for each passenger on the street-car, which was an exaggerated but illustrative way of stating the difficulties. I do not see the slightest reason why we should not have, on the street railroads in this country, a zone system like the one the British use in their motor buses. When you get in you pay a penny, and when you cross a line you pay another penny or half-pence, as the case may be, and I see no difficulty whatever in establishing the zone system in that way in this country.

Commissioner SWEET. Is the zone system in vogue in Europe on electric railways?

Secretary BAKER. I do not know, Mr. Sweet. There are not many electric railways in Europe, relatively. They use the motor bus. There are in the motor buses, of course, but I do not remember about the street railroads. It has not been on the underground, I know.

Commissioner SWEET. Do you still entertain the same view you did when you were discussing that matter with Mayor Johnson?

Secretary BAKER. Yes.

Commissioner MEEKER. In the underground they do have to pay an extra fare.

Secretary BAKER. Do they? I have forgotten about that.

Commissioner MEEKER. When they emerge from the train, in case they have ridden beyond a certain point. And in the tramways they have the same system as the motor bus.

Secretary BAKER. I am not in favor of the British method of collecting any kind of fare. I think their method of collecting fare is incomprehensible to the American mind.

Commissioner MEEKER. They have that on the tubes in New York, too.

Secretary BAKER. I noticed that the other day, that they pay an extra fare when they get out of the so-called McAdoo tube.

Commissioner SWEET. In your discussion with Mayor Johnson of the zone system did either of you bring up the question of distribution of population?

Secretary BAKER. Very constantly. It was a thing we had in mind all the time.

Commissioner SWEET. Don't you think the zone plan would work rather in favor of congestion and be objectionable on that ground, quite seriously?

Secretary BAKER. Yes, it kills the traffic on both sides of the zone line; it has that effect; and I think it does have the effect of congesting the people toward the cheaper haul.

Commissioner SWEET. When you consider——

Secretary BAKER. But that accounts for itself very easily. What happens then is that the rent which the landlord gets at the end of the line falls, so it ultimately goes back to the land value after all.

Commissioner SWEET. I understand that, under the European system, the higher charge in proportion to the longer trip has seriously tended toward congestion in the cities. Our system of charge, a nickel for almost any ride whatever on an electric railroad, urban or in the vicinity of a city, has had a tendency, I think, to build up the suburbs of cities to quite an unusual extent, more than in foreign cities.

Secretary BAKER. I think it has.

Commissioner SWEET. And that would certainly seem to be in the interest of sanitation, and perhaps good morals and the general benefit of the community; would it not?

Secretary BAKER. Yes; there are advantages on that side.

Commissioner SWEET. I have wondered whether the advantages there were such that it would be better to make up a deficiency, if necessary, by general taxation and charge the low rate of fare to encourage people to build and own homes outside the cities.

Secretary BAKER. You may be interested to know that Mr. Johnson entertained your view so strongly that he regarded the ideal way of street-railroad operation as entirely paid for by the taxpayers and all car riding free. He used to say there was no more reason why elevators should be operated free in buildings than that street railroads should not be operated free. The same thing ought to apply. I do not agree with that.

Commissioner SWEET. Do you think the arbitration plan in Cleveland is a good one?

Secretary BAKER. It has always worked well, Mr. Sweet.

Commissioner SWEET. And do you think that that ought to be incorporated in any system that is modeled at all or somewhat modeled after the Cleveland plan?

Secretary BAKER. Yes, I think it is a very excellent safety valve and a very effective piece of machinery if it is handled properly.

Commissioner SWEET. I understand the company appoints one arbitrator and the city one, and then the——

Secretary BAKER. The Federal judge.

Commissioner SWEET. The Federal judge?

Secretary BAKER. Yes, the Federal judge appoints the third.

Commissioner SWEET. I think that is all.

Commissioner MEEKER. Mr. Secretary, I would like to ask what you would do in case the fares did not afford a sufficient income. Would you support the street railways through taxation?

Secretary BAKER. No, I would not.

Commissioner MEEKER. Suppose that the street railways are unable to bring in sufficient income with any fare that may be devised—the maximum net revenue fare—

Secretary BAKER. I do not think that can be answered as a generalization. It may be that there are reasons it can not bring in enough, and that they have improperly laid out lines that may be very uneconomical lines. For instance, in Cleveland when we were making our settlement, we undertook to estimate the unexpired franchise value of the lines in the belief that that was an asset of the company that ought to be covered in their new stock. We got some three or four million dollars unexpired franchise, and then I proved that there were half a dozen lines that had a negative franchise value, that it cost the company money for every passenger they hauled; and I wanted to take the negative franchise value from the positive franchise value and put only the net in the ordinance, but Judge Tayler would not do that. You may have, in the case you are speaking of, a lot of lines which ought not be operated at all.

Commissioner MEEKER. You would eliminate lines that did not pay, would you, regardless of what—

Secretary BAKER. I would not say I would do it regardless; but if you had two lines operating close to one another, and only got revenue from both sufficient to operate one, I would operate the one and discontinue the other one.

Commissioner MEEKER. Would you—

Secretary BAKER. When I say I would do that, I do not mean if I were mayor or were this commission or a State commission, but I mean if I were the people of that city, I would get together with the city and understand that situation and decide among ourselves which one to cut out.

Commissioner MEEKER. You think under certain circumstances it would be justifiable to support the street railways through taxation—

Secretary BAKER. No; I do not think so.

Commissioner MEEKER. If they can not earn sufficient revenue to pay the current wages and the price of materials at a reasonable return upon the capital investment you would have the lines discontinued?

Secretary BAKER. Yes.

Commissioner MEEKER. You would apply that to Boston, with—

Secretary BAKER. I would apply it anywhere.

Commissioner MEEKER. With ruthlessness?

Secretary BAKER. I do not believe in taxing the people of Boston to let some people ride on street-cars. People who get the service from the street-cars pay for the service they get, and if there are not enough of them who want the service to justify its continuance, it ought to be discontinued.

Commissioner MEEKER. Does the plan of cooperative management permit any considerable economies in operation? I mean a plan not necessarily the Plumb plan, but some cooperative plan under which the employees and the management and the public will get together in the management of the street-railway lines.

Secretary BAKER. Mr. Meeker, I do not want to speculate about the Plumb plan, because I know too little about it, but I am willing to say this—that my experience as the responsible manager of a lot

of very large manufacturing enterprises—namely, the arsenals that are operated by the War Department—has shown me that introducing the committees of workers into the councils of the management of the arsenals has brought a very high, fine degree of cooperation from the operatives in those plants to the Government. It has been a distinct improvement. Of course, that is a different case, because nobody is operating for profit there.

Commissioner MEEKER. I hesitate to ask this question, but I do not know how to get the answer in any other way: Would you advise this commission to make any recommendation on that point? That is, is there likelihood of a quick enough take-up of any such suggestion so as to result in any influence solving the present very unsatisfactory street-railway situation?

Secretary BAKER. Really, I do not think I could state my own mind on that subject. I do not know.

Commissioner MEEKER. You will note that I did not suggest the Plumb plan. I simply mean any kind of a cooperative plan of management that may be thought practical.

Secretary BAKER. On the general principle I am perfectly willing to say that I believe without at all having in mind the details and all safeguards and all the rest of it, but as a general principle, the intelligent cooperation of the workers with the operators and the public whom they are to serve will produce a higher degree of efficiency than a combination of any two of those to the exclusion of the other.

Commissioner MEEKER. And, of course, no one of those three interests represented should be in a position to outvote the other two.

Secretary BAKER. Well, I am rather inclined to think that the public interest ought to be in a position to outvote all the others.

Commissioner MEEKER. To outvote all of them?

Secretary BAKER. That would be my judgment.

Commissioner MEEKER. In regard to taxation: What was the original theory of taxation as applied to street-railway operations? Was it the idea to get at the profits made by the street-railway companies, that the taxation would not fall in the last instance upon the street railway rider?

Secretary BAKER. If there ever was any theory behind the general real and personal-property-tax system which was adopted in most of the States of the Union I have no idea what that theory was. I have never been able to discover any justification for it in logic or sense, and I have no idea what theory was in anybody's mind when he either adopted or voted for it.

Commissioner MEEKER. You think from the very beginning the taxation as applied to street railways really did hit the pocketbooks of the car riders?

Secretary BAKER. Yes; I think the car riders paid the taxes.

Commissioner MEEKER. Even in the early days of street railways, when the companies were at least believed to be making large profits?

Secretary BAKER. Yes; I think the car riders still pay both profits and taxes.

Commissioner MEEKER. The taxes would increase the car fares instead of decreasing the profits.

Secretary BAKER. Yes; I think so; because I think the rule with regard to street railroad fares, as with all other fares in America until very recent years, has been all the traffic will bear—the point of

maximum return. I think if the owners of the property had been exonerated from the necessity of paying the taxes they would still have charged the highest rate of fare they could; so that may mean that the riders paid the tax.

Commissioner MEEKER. Yes.

Mr. WARREN. But they might have given more in service or have been forced to give more in service?

Secretary BAKER. Well, that is a question of opinion upon a past fact. You can not generalize about that. In some places there were street-railroad companies that had a very high degree of responsibility for the public service they were performing. In others, there were companies that just squeezed the public down to the minimum. I would not generalize about that.

Commissioner MEEKER. I think that is all.

Commissioner GADSDEN. I have just one question, Mr. Secretary. The testimony which has been offered before the commission for the last two weeks has shown a condition of practical bankruptcy in the entire industry, numbers of companies showing an operating deficit, no return on capital at all. Plans for a permanent solution of the problem such as you have discussed necessarily will take a considerable time. Now, in the interim, do you not think it only fair and proper and just that the fares of these companies, pending a permanent solution of the trouble, should be increased certainly to the point of offsetting the admitted increase in the cost of labor and materials?

Secretary BAKER. Well, if you mean in those properties in which no return is being made upon investment, I would say, obviously, yes. But if you mean to have in mind a lot of companies in which an insufficient return is being made upon apparent capitalization, I should say that with a great deal of hesitation whether it ought to be in a particular case or not. But whether the rate of fare is to be increased or not—if it is to be increased it ought to be done by the people who are to pay it. If it is done by any other body or agency; if the Federal Government tries to do it, or the State government tries to do it, it will be resented and will postpone a correct adjustment between the people and the company rather than accelerate it, in my judgment.

Commissioner GADSDEN. What I had in mind was whether possibly this commission might not aid public opinion by recommending that, pending the permanent solution of the problem, some adequate increase in fares should be granted railways, as has been granted every other industry in the United States.

Secretary BAKER. Yes. I would be perfectly satisfied if I were a member of the commission to urge the cities in this country that had street-railroad problems of this kind to grant additional fares under an arrangement to be made with the company whereby the surplus should be kept in a separate account and taken account of in the final settlement with the street-railroad company.

Commissioner GADSDEN. In other words, keep them alive until you can work out the problem?

Secretary BAKER. Keep them alive and let it be perfectly understood how much was granted to them in excess of their franchise rights.

Commissioner SWEET. What objection would there be to a referendum vote on that?

Secretary BAKER. None whatever.

Commissioner SWEET. It would help things along in the way of education?

Secretary BAKER. Yes; but we never depended upon referendum votes for our educational work out there. We had very few referendums. The referendum is simply a rod in pickle that you do not have to use because everybody knows it is there. We went out and made speeches in tents and held meetings—

Commissioner GADSDEN. Education must necessarily precede the referendum?

Secretary BAKER. Yes.

Commissioner SWEET. But when a referendum vote is to be taken, just like in a political campaign, you can get the ear of people; they will come together and listen to you.

Secretary BAKER. But we did not wait until there was a referendum coming. Mr. Johnson would put in the newspapers that he was going to be at the corner of Loraine and Forty-fourth Street at half past 7 o'clock, and the corner would be packed.

Commissioner SWEET. How many cities in the United States have Tom Johnsons to-day?

Secretary BAKER. Unhappily, none that I know of.

Commissioner MEEKER. You do not mean by education to depend upon the newspapers to educate the public?

Secretary BAKER. No; although the newspapers are a very helpful agency, of course; but I would not depend entirely upon that.

Commissioner MEEKER. Is there not danger of education being of the wrong kind and the result proving a detriment instead of an advantage?

Secretary BAKER. Of course, there is always a possibility of people being deceived by erroneous statements of fact. I never felt that obvious bias was dangerous—that is, propaganda work does not seem to me to be dangerous.

Commissioner SWEET. Cheap politicians have made a lot of capital out of fighting street-railroad companies, have they not?

Secretary BAKER. Yes.

Commissioner SWEET. In the past.

Secretary BAKER. Yes.

Commissioner SWEET. Some of it, I imagine, and I rather think you do, is deserving and some not.

Secretary BAKER. I think the only reason that the cheap politicians have done it is that the good politicians did not.

Commissioner SWEET. Probably; but what I meant to say was that the street-railroad companies have not been entirely without blame.

Secretary BAKER. No. What I mean by that is this—that the relations between street railway companies and municipalities in this country have not been sound or wholesome, and the fact that wise people either blinked at that fact or refrained from trying to correct it gave less wise people an opportunity to agitate in an unwholesome way.

Commissioner SWEET. But the fact that cheap politicians might come forward and try to misstate and beguile people into believing thing that were not true with regard to the street-railway companies, and throw dust in their eyes, would not, I imagine, in your judgment, be any reason why the subject should not be thoroughly discussed with

the idea that more intelligent people would be able to satisfy the general public of what is right.

Secretary BAKER. No; that sort of thing is dangerous only when the facts are not accessible.

Commissioner SWEET. That is it exactly.

Secretary BAKER. Now, anybody can go out on the street and get up a big hubbub about something when there is no access to the facts, and his own statement of them will be as colorable as anybody else's; but if the people can go into the next building and look at the facts they will come out and drive that fellow to his corner right away.

The CHAIRMAN. You have stated that in your judgment the maximum street-car fare should be 5 cents?

Secretary BAKER. That was a very bold thing for me to say. I do not know that I ought to say that; it is just as a reminiscence more than anything else. I do not believe—from my observation of popular psychology in regard to street-car fares, with the traditions that adhere to it—I do not believe the people of this country are going to pay permanently more than 5 cents for a street-car fare.

The CHAIRMAN. If it is possible through economies or otherwise to maintain the 5-cent fare, that should be done?

Secretary BAKER. Or less.

The CHAIRMAN. Or less?

Secretary BAKER. Yes.

The CHAIRMAN. The facts are that a very great number of the companies to-day are charging more than 5 cents, and the tendency of wages and the cost of material and supplies is still upward. Have you any opinion as to the length of time that this abnormal price tendency may last?

Secretary BAKER. No; I have none.

The CHAIRMAN. During that period, however, it is manifestly impossible for State commissions or other regulating bodies to reduce the rate to the 5-cent fare in many communities?

Secretary BAKER. Yes.

The CHAIRMAN. Is there any other way than by the payment of a fare by which these companies could get anything in excess of 5 cents?

Secretary BAKER. Yes.

The CHAIRMAN. What way should that be?

Secretary BAKER. The payment of two fares; break the haul.

The CHAIRMAN. But you do not believe that the public, by way of a subsidy, should pay that excess over 5 cents?

Secretary BAKER. No, I do not say that; but I would say that any particular system ought to be examined by those in charge of regulating those fares to find out whether there are not uneconomical lines that are imposing the burden that makes 5 cents insufficient. You find a lot of people or a few people, for instance, riding 14 miles and they pay 5 cents, and a lot of other people ride half a mile and pay 5 cents.

Commissioner SWEET. Or half a block.

Secretary BAKER. Yes. Now, I think it would be very much wiser to make the people who ride 14 miles pay 10 cents than everybody who rides half a block of the 14 miles pay 7 cents.

The CHAIRMAN. That means the establishment of zone fares?

Secretary BAKER. Yes.

The CHAIRMAN. Do you think the situation could be helped any by having 6-cent or 7-cent or $7\frac{1}{2}$ -cent coins produced?

Secretary BAKER. Yes; I think it would help some. I would not say just which ones. I always believed that the establishment of a 3-cent coin, or really the introduction of the 3-cent coin, would be an enormous advantage to the Cleveland situation. We had very entertaining times with our 3-cent fare, gentlemen. The ordinance required it should be paid in cash, and there were no 3-cent tickets; and people would hand our conductors five-dollar bills and ten-dollar bills, and that got to be a very evident effort of the adversaries of the Municipal Traction Co., which was operating. So Mr. Johnson, with his customary ingenuity, answered it by equipping the conductors with bags containing 497 coppers and 997 coppers, and when anybody handed a conductor a five-dollar bill, he dumped a bag with 497 coppers in his hands; and they discontinued that line of attack. A 3-cent coin would have helped a lot.

Commissioner SWEET. Highly educated as your people were, they could not get the start of Tom Johnson, could they?

Secretary BAKER. He was their schoolmaster until he died.

The CHAIRMAN. We are very much obliged to you, Mr. Secretary.

Mr. WARREN. May I ask a question?

The CHAIRMAN. Would you wish to answer Mr. Warren?

Secretary BAKER. Certainly.

Mr. WARREN. Subsequently, was there not a rule adopted that no change would be made? I think that Mr. Stanley when he was here testified that change was not made by conductors.

Secretary BAKER. Change above a certain maximum-sized coin—I think they had nothing over a dollar; some such rule as that.

Mr. WARREN. I thought that if a man gave a nickel he did not get change for it. Under the present arrangement the fare now is 5 cents, is it not?

Secretary BAKER. Yes.

Commissioner SWEET. That is what was testified.

Mr. WARREN. With 1 cent for transfers?

Secretary BAKER. I think there was some such rule as that at one time. I have forgotten what it was.

Mr. WARREN. I understood somebody to testify that was so. Then, Mr. Secretary, you were mayor after this went into effect?

Secretary BAKER. Yes.

Mr. WARREN. Was Peter Witt your commissioner?

Secretary BAKER. I was not mayor at the time it went into effect, you understand.

Mr. WARREN. But subsequently.

Secretary BAKER. Mr. Johnson was defeated in 1910 and Mr. Herman Baer was elected mayor and was mayor for two years; and it was during Mr. Baer's term that the ordinance went into effect. Mr. Gerhart Dahl was his city street-railroad commissioner. Then I was elected after the termination of one term of Mayor Baer and was mayor for four years; and during that time Mr. Peter Witt was city street-railroad commissioner.

Mr. WARREN. So you had very practical experience in the operation of this plan in Cleveland as mayor?

Secretary BAKER. Yes.

Mr. WARREN. And was there not a very complete cooperation between the city and the company, taken as a whole? I suppose there may have been differences of opinion from time to time, but did not the city do a great many things to facilitate the operation of the railway?

Secretary BAKER. I think, taking it all in all, that the cooperation was as effective and cordial as one could well imagine.

Mr. WARREN. For example the keeping of vehicles off the tracks?

Secretary BAKER. Yes.

Mr. WARREN. The city cooperated in that?

Secretary BAKER. Yes.

Mr. WARREN. Enabling the company to speed up the cars and maintain better schedules?

Secretary BAKER. Yes; and the introduction of the alternate stop, which was an enormous economy.

Mr. WARREN. So that was really one of the very great benefits of this public education and understanding of the situation?

Secretary BAKER. Yes.

Mr. WARREN. And to a greater or less extent that might be hoped to follow a similar education elsewhere?

Secretary BAKER. I should think so. Another conspicuous illustration of it was the reintroduction of the trailer car. Cleveland is especially adapted to the use of trailer cars, and of course it cuts the expense of operation practically in half—you can operate a car and a trailer for one and a half times the cost of operating the main car, and the car itself is not so expensive. There was a tremendous objection against trailer cars all over the United States; they were characterized as murderous things. And yet an effective and safe trailer car was used and worked with the consent of the city and the city adopted it at once.

Mr. WARREN. And the city oftentimes made suggestions?

Secretary BAKER. Very many.

Mr. WARREN. Mr. Witt was a very suggestive man, I believe. I think you answered this question, but I did not catch the answer. Did this apply only to the city of Cleveland or to the suburbs? What would be the fare in the suburbs?

Secretary BAKER. The ordinance applied only to the city of Cleveland and the fare outside was different in different municipalities, based upon their ordinances in effect at the time this ordinance was effective.

Mr. WARREN. Are you familiar with the Boston situation at all?

Secretary BAKER. No; I am not.

Mr. WARREN. I might just state there, because I think it is rather an interesting difference—I can not state it exactly—but the Boston Elevated serves not only the city of Boston, but some 11 or 12 surrounding municipalities and which roughly, I should say, have half as much population as Boston. They include Cambridge with 100,000; Somerville, with approximately the same number; and Newton and Brookline, with approximately 40,000 each, and there the attempt of the company has been to serve all those people for a flat fare. One of the results of that in the twenty-odd years has been to take a great many thousand people from the city of Boston, from the more congested and older sections, into these suburban towns and into the remote parts of the city limits, so that they have

increased very much. Now, under such a situation as that, might it not be desirable that a State commission should have some sort of supervisory power or appellate jurisdiction?

Secretary BAKER. If you start out with the assumption that it is impossible to do the logical and right thing at Boston, then this may be the best substitute for it.

Mr. WARREN. Well, you mean to have the city regulate it as in Cleveland?

Secretary BAKER. No; I mean if you start out with the assumption that you can not make one city of what is one city—namely, Boston, and the population that lives around Boston—if you can not consolidate those and make one city out of them, then I suppose you would have to have some State agency to control them.

Mr. WARREN. Unfortunately, the tax rate varies so much in those different places that—

Secretary BAKER. I know. That is the greatest superstition in the world. I have had to fight that in Cleveland over and over again. People imagined that they lived in a little section outside of Cleveland and they imagined that the tax rate in Cleveland was high, and that they would never get any improvements if they came into the city. And, one after another, we have gotten them in by persuasion and sometimes by coercion, and I have never known one willing to go out after it once got in. And that would be true of Boston. The advantages of incorporation in the city are too great—and of course they are glad to be in after they get in.

Mr. WARREN. Your solution would be to make—

Secretary BAKER. To make one city out of Boston. At one time there were 39 separate police jurisdictions in the city of London. And a fellow would break a window and would run, and the policeman would chase him, and as soon as he got to the limit of his jurisdiction he would have to stand there and holler to the next policeman to chase him, and if the fellow could run fast enough he would run all day long through these 39 jurisdictions and never be caught by anybody. It is just the same thing in Boston. You have a lot of community interests up there which are separated by these separate municipalities. And Boston is only in a larger sense worse than other cities, because Cleveland is the same way. You can not make East Cleveland come into Cleveland, but they ought to.

Mr. WARREN. When you speak of the 5-cent fare being, in your judgment, perhaps the maximum possible fare, I judge, from something you said afterwards, that you had no particular distance of ride in mind, because you said something about if it would not pay, if that fare would not pay under the present abnormal conditions, to put in another 5-cent fare and divide the territory.

Secretary BAKER. Yes; divide the territory, not necessarily into two 5-cent zones, but into a 5 and a 1 or a 5 and a 2.

Mr. WARREN. In other words, you did not want the commission or the public to understand that the 5-cent fare was the maximum for your 5-cent territory?

Secretary BAKER. Obviously not. But you and I both know that that most profitable traffic on a street railroad is the short-haul traffic downtown, where a man goes from his office to the bank and gets on the street-car. He will get in if it only costs him 5 cents, but he will walk if it costs him 6 cents, and it does not make a bit of

difference how right he is. There is some psychology that I do not know enough to explain, but it is there. When you put in a 6-cent fare, you decrease not your long-haul expensive traffic which costs you more than your income, but you have cut out the heart of your profitable short-haul traffic, so it is—

Mr. WARREN. So in your mind the 5-cent fare is the unit which should be used?

Secretary BAKER. Yes.

Mr. WARREN. And the service which should be given for it should be measured by other circumstances.

Secretary BAKER. Yes.

Commissioner GADSDEN. And you would shorten the ride rather than increase the fare?

Secretary BAKER. Yes. I have never been able to get the difficulties of the zone system—I think if you start with the 5-cent fare, if that is the necessary fare, and you charge another cent for riding an additional mile beyond the profitable limit, it is perfectly unobjectionable.

Commissioner MEEKER. Do you think the effect upon congestion is negligible?

Secretary BAKER. Negligible.

Commissioner MEEKER. We have in our 5-cent-fare zones the greatest congestion of population to be found in the world, in New York City.

Secretary BAKER. Yes. The immediate effect undoubtedly would be to cause people to move in the tenements in the cheap fare district. The next effect of it, however, is to decrease the rental value of outlying lands, and then people find they can rent for as much less out there than they could downtown as the difference in the cost of the street-railroad fare, so that the effect of it is to disperse the population.

Commissioner MEEKER. Does it not also have the effect of dispersing industry? That seems to be the experience of Europe.

Secretary BAKER. Yes, I think it does—although the European experience on that subject is unreliable because the habits of the two sets of people are different. Their laborers all live around their factories and workshops, and ours never did.

Commissioner MEEKER. They had congestion before they had street railroad systems.

Secretary BAKER. Yes.

Mr. WARREN. I want to follow up that 5-cent proposition a little further. You do not question, I judge, that many of the companies need additional revenue to-day.

Secretary BAKER. Well, I would not generalize about that.

Mr. WARREN. But assuming that a company with an average haul of 3 miles and a 5-cent fare and perhaps a 5-cent franchise limitation, was not making its operating expenses, there would be no question, would there, but what it ought to get more revenue if it is going to continue to operate?

Secretary BAKER. I think there might be. If it were put up to me, the first thing I would look at would be whether they had not too high operating expenses. A 3-mile average haul is not too much for a 5-cent fare. Of course, conditions are so different—it may all

be uphill and downhill and, in that case, it would be very obvious they ought to have more.

Mr. WARREN. But I wanted to make sure—I think you have already said so—that, by what you have said about the 5-cent fare, you do not mean that the 5-cent fare should under the present conditions necessarily apply to the haul that was formerly given for 5 cents?

Secretary BAKER. Of course not.

Mr. WARREN. And whether the—

Secretary BAKER. But I would say that before I would raise any fare above 5 cents, which is not at 5 cents, I would have to be shown that the operation was economical, because I believe that is the psychological fare that can be obtained.

Mr. WARREN. And if you were satisfied of that, then you would consider shortening the haul and putting in an additional zone at the same rate?

Secretary BAKER. I would, rather than increasing the general fare.

Mr. WARREN. Rather than increasing the unit of collection.

Secretary BAKER. Yes.

The CHAIRMAN. Under a zone system, what would you start the fare at?

Secretary BAKER. I would not like to—in Cleveland I would start it at 3 cents.

The CHAIRMAN. Then the 5-cent fare is not the minimum charge for the service?

Secretary BAKER. Oh, no. As a matter of fact there must be a lot of places in the United States where they ought to do it for 2 cents.

Mr. WARREN. If the zone—

Secretary BAKER. No; I do not mean that, but take—well, there must be very large hydroelectric plants with surplus power out in the far western country where they have enormous quantities of exceedingly cheap electric power and flat cities. It seems to me they ought to be able to supply service there for 2 cents.

Mr. WARREN. I do not suppose you remember at all what the rate of wages was at the time of the strike which you mentioned?

Secretary BAKER. You mean the first strike of the Municipal Traction Co.?

Mr. WARREN. Yes.

Secretary BAKER. No.

Mr. WARREN. I do not suppose you have had an opportunity to follow the increase in wages?

Secretary BAKER. They have gone up enormously from that time until now. They must have been more than doubled.

Mr. WARREN. Yes; I think they have just about doubled. You are, of course, familiar with the increase which was made in the rate on steam railroads from 2 cents to 3 cents per mile?

Secretary BAKER. Yes.

Mr. WARREN. So that in a general way I judge that you would agree that the proper operating expenses would be found to have very greatly increased since the European war began?

Secretary BAKER. Well, leaving out of account any possible economies that may be involved—and that would be on the other side of it—I think it is perfectly obvious that practically all operat-

ing costs have increased in the street-railroad business since the beginning of the war, coal and wages—and those are the two principal items.

Mr. WARREN. You spoke of various things that made operation less expensive in Cleveland than in some other parts of the country. Is not coal, which you have just mentioned, one of those? Is not the coal pretty near to Cleveland?

Secretary BAKER. Yes; we are pretty close to the Ohio mines.

Mr. WARREN. And freight rates correspondingly low?

Secretary BAKER. They are very favorable.

Mr. WARREN. For example, a \$3.50 water-freight rate from Newport News to Boston plus the rail rate, which I think makes it about \$5, would be very much more than is paid in Cleveland?

Secretary BAKER. Very much more than is paid in Cleveland at any time in my knowledge. I do not know what the rates are, at present.

Mr. WARREN. I think that is all, Mr. Secretary. I am very much obliged.

(Witness excused.)

The CHAIRMAN. Is Mr. Ogburn present?

Mr. OGBURN. Mr. Chairman, there are present several public-utility commissioners who are here to testify on certain limited phases of the traction situation, particularly in their own localities. They have indicated to me that, as they occupied judicial positions, they would want to make their testimony limited, and would not care, of course, to testify in regard to any cases or any question bearing upon any cases which at the present time are pending before them.

One of the commissioners whom we desired to have next is the chairman of the Public Utilities Commission of the District of Columbia, Lieut. Col. Kutz.

STATEMENT OF LIEUT. COL. CHARLES W. KUTZ.

The CHAIRMAN. You may proceed, Colonel, in your own way.

Col. KUTZ. Mr. Chairman, in the District of Columbia, the street-railway lines are consolidated or allied into two distinct groups, the Capital Traction group and the Washington Railway & Electric group. Both groups are competitive in the strictly built-up portion of the city, but the two systems differ materially in the suburbs, the Capital Traction group having two lines running to the confines of the district, and the Washington Railway & Electric having about 10 suburban lines; so that the mileage of the Washington Railway & Electric is very much greater than that of the Capital Traction.

Prior to the war the two companies were both operating on a fare of 6 tickets for 25 cents, and the Washington Railway & Electric, having a larger mileage, was enjoying the greater revenue. And, in addition to that, there was a condition existing which probably helped to account for the fact that before the war they were both subsisting equally well on the same rates of fare and just now they are not.

Commissioner SWEET. When you say "greater revenue" do you mean greater gross revenue or net revenue?

Col. KUTZ. Prior to the war?

Commissioner SWEET. Yes.

Col. KUTZ. The greater number of paying passengers.

Commissioner SWEET. That would be greater gross revenue?

Col. KUTZ. Yes; greater gross revenue, gross revenue from street-car fares. The Washington Railway & Electric Co. is the owner of all the stock in the Potomac Electric Power Co. and enjoys all the profits of the power company; that is, they are added into its revenues.

In 1917, just about the time the United States entered the war, the public-utilities commission reduced the rates for electric light and power, and thereby, to that extent, curtailed the revenues of the power company and curtailed the revenues of the street-car company.

Of course, that act of the commission was enjoined in the court, and has not yet been decided; but the difference between the old rates and the new rates is now being set aside by the power company and will be either paid to the users or go into the treasury, dependent upon the decision of the court.

I speak of that now because I think it helps to account for the fact that at the present time, both companies enjoying the same rate of fare, one is applying for relief and the other one is not.

The CHAIRMAN. Which one is applying for the relief?

Col. KUTZ. The Washington Railway & Electric Co., the one with the larger mileage, the large suburban mileage.

Another thing is that the population of Washington greatly increased during the war, and that led to an increased number of pay passengers and greater increase on the Capital Traction lines than on the lines of the Washington Railway & Electric Co. So that we have this situation at the present time: Each company is carrying approximately the same number of passengers, and yet the Washington Railway & Electric Co., which has this large suburban mileage, almost twice the mileage of the other line, is operating a greater car-mileage, and yet its gross revenues are the same; and, of course, it has a greater cost of maintenance of track.

The fares were increased last fall from 6 tickets for 25 cents to a straight 5-cent fare. That was upon the petition of both companies.

Early this year the Washington Railway & Electric Co. applied for a further measure of relief, the Capital Traction Co. making no application; and the commission decided the Washington Railway & Electric Co. was entitled to relief and based that upon a tentative valuation of the property of the company, we not yet having reached a final conclusion as to the values.

As a result of that consideration, the commission decided that the net operating income of the Washington Railway & Electric Co. should be increased by \$300,000 a year so as to make its net operating revenue approximately \$900,000. It also decided, in this same opinion, to grant the same increase in rates of service to the Capital Traction Co. that it granted to the Washington Railway & Electric Co., on the ground that if it granted one rate of service to one company with a lower rate to the other, there would be such a transfer of passengers from one line to the other within the congested part of the city that the increased rate of fare would be entirely offset by the reduction in the number of passengers carried. So that, by reason of the fact that they were competitive within the

city proper, we decided that each should receive the same rate of service. We granted that increased revenue, not by increasing the flat fare, nor by a strict application of the zone system, which was advocated, but by the imposition of a charge of 2 cents for transfers, that charge applying to transfers within each of the two groups of companies, and also to transfers between the two groups, which had formerly been granted free.

We also provided, in the transfer order, that where a transfer was granted on a transfer, a charge should be made for it. There were about 20,000,000 passengers on each line that were transferred.

Of course, it was expected that the number of passengers applying for transfers would be reduced as a result of the charge; and that has been borne out, the number of transfers having been reduced probably about 25 per cent.

The commission expects to complete its valuation of the property of the two companies during the current month, and it will then announce its values and will be prepared to authorize a rate of fare based on that valuation, with a reasonable rate of return. But we see before us, though we have not yet come to it, this problem confronting us, of two competing companies within the city, and the difficulty of granting a different rate of fare to each, and yet the inequity to the public of granting a living rate to one company and an unnecessarily high rate to the other company.

There have been several suggestions made by which that problem can be solved. One of them was that the tax which is now made on the gross income of the companies be levied on the net income.

The CHAIRMAN. What is that tax, Colonel?

Col. KUTZ. I think 4 per cent. The suggestion was that it be applied to the net income rather than the gross income, which, of course, would have an equalizing effect.

Mr. WARREN. That is applied to each company now, Colonel?

Col. KUTZ. Yes; that is applied to each company now. Then the suggestion was that we adopt a zone system, which would also have an equalizing effect in this particular case, because of the 10 suburban lines of the one company as against the two of the other. But when the zone system was suggested some months ago, very great opposition was voiced to it.

The District of Columbia is somewhat different from the average city in the country in that its boundaries were fixed a great many years ago and probably will remain unchanged for a great many years. In other words, it is not an expanding community, from a territorial standpoint.

Of course, all property values within the District have for many years been based on this flat rate for street-car fare, and of course we distribute electric light to all parts of the city on the same rate and we distribute gas to all parts of the city on the same rate, and yet we know that it costs more to deliver gas 10 miles than it does to deliver gas 1 mile. Also, sociologically, we think there are a great many advantages in a flat rate of fare within the District of Columbia.

I am not expressing any opinion, not voicing the opinion of the commission; I am really not voicing a definite opinion of my own on the question of the zone fare.

The CHAIRMAN. You are simply pointing out the problem?

Col. KUTZ. Yes. The evidence seems to indicate that a zone system in the District would be very unpopular; and I believe if it were submitted to a referendum of the people, their preference would be expressed for a flat rate of fare rather than the zone fare.

I might say that the charge for transfers is not a popular charge in the community. Many people, individually and collectively, have expressed the opinion that an increase in the flat rate of fare would better satisfy the public than a charge for transfers.

I might say this: That if you assume 90,000,000 passengers, and that that number would not be reduced as a result of an increase in the rate, with an increase of half a cent in the fare, it would yield \$450,000 a year to each of the companies; and our study of the lack of sufficient revenue indicated that the Washington Railway & Electric Co. needed \$300,000 to bring it up to the sum which we estimated; and as it was estimated that a 2-cent charge for transfers would yield the \$300,000, we prescribed that charge as being the lesser of the two burdens on the public sufficient to yield 6 per cent on the fare value, while half a cent increase in the fare would yield more than that.

I would like to say just one word about the question of paving, which the Secretary of War brought up this morning, because from an engineering standpoint I see great difficulties in a divided responsibility for the paving between the rails and over the ties.

The damage to the paving between the rails and for two feet outside the outer rail is not caused by the traffic on the street to anything like the extent that it is caused by the character of the foundations under the rails.

If the rails are on ties, and those ties are not properly tamped, they are going to heave up the best pavement than can be laid.

If the rails are on cast-iron yokes embedded in concrete, and those concrete foundations under the yokes are not adequate, so that the rails settle, they will break up the best concrete and asphalt pavement that can be put down.

If you have the railway company responsible for the foundation under the rails, and the city responsible for the paving, there is going to be a constant source of trouble and difficulty. So the suggestion has been made that if the companies are to be relieved from the cost of paving and maintaining the pavement between the rails, it would be better to go one step further and let the city acquire title to the roadbed—that is, the rails and their foundations—leasing them to private operating companies. In other words, it would be municipal ownership of the roadbed, but with private operation of the railway company.

That suggestion has this advantage over privately owned roadbed, with this additional advantage: It has one advantage as far as paving is concerned, and it has this additional advantage, that a municipality owning the roadbed can extend that roadbed when and where it is needed; and that is one of the difficulties under commission regulation of street railways—that is, the difficulty of extending a system without injustice to the company. That is, in the past, when there was no commission regulation, companies would extend their lines into the suburbs on the strength of prospective profits. With the present commission regulation of the rates of return and

with rates of service fixed by the commission, the companies hesitate to make extensions of their lines, and there are a number of extensions—local extensions—that I think ought to be made, that I am sure that either company would hesitate to make, because they would not promise to be compensatory within a reasonable time—that is the phraseology of our law; and without such a promise the commission really has not the power to grant them, or to compel the extension to be made.

So that the paving difficulty and the extension difficulty would be solved by a municipal or local ownership of the roadbed; and that intermediate relationship between complete private ownership and control and municipal ownership and control does not have one objection that has been voiced to complete municipal ownership and operation, and that is that street-railway traction is not now limited to the confines of a city, but runs well out into the suburbs, and runs to other communities.

With the city owning the tracks, it could lease operating rights to interurban railways, or permit the existing railway corporations, which are interurban in character, or extending into the country to operate; and it would have this advantage, that if certain lines were not as profitable as other lines, the rental fixed for those lines could be made such as would yield a return at a given rate of fare, whether that be flat or zone fare, and a larger rental charge on other more profitable lines, if it were desired to maintain a single rate of fare throughout the community.

It seems to me that it would be a very flexible arrangement. But I see a great disadvantage from an engineering standpoint in dividing the responsibility for the foundations of the rails and the paving between the rails. It is a difficult thing to work out.

Commissioner MEEKER. What you say regarding Washington would apply to other cities with equal force, I suppose?

Col. KUTZ. I do not pretend to any special knowledge of conditions in other communities, but I think it would.

Commissioner MEEKER. Pavements act in about the same way in Baltimore and New York that they do in Washington?

Commissioner SWEET. How many other communities have two railroad systems?

Col. KUTZ. I can not answer that.

Commissioner SWEET. Is not that in itself a serious evil?

Col. KUTZ. I think so; to have two of them competitive in the heart of the city.

The CHAIRMAN. Had you finished your formal statement, Colonel?

Col. KUTZ. I think so. I do not believe anything else suggests itself.

I will say this, that in connection with this suggested municipal ownership of the rails, that suggestion is made first on the assumption that a merger of the two lines can not be effected, either through the joint efforts of the two companies and the public, or that they can not be compelled by Congress to merge. Each of these companies enjoys certain rights and privileges, and it has been held that Congress itself has not the power to compel a merger; but Congress undoubtedly has the power to acquire, under due process of law, the roadbeds of these companies.

I would say that many of the evils would disappear, and many of the difficulties would disappear if a merger were brought about, and if a merger can not be brought about, it may be necessary to take the next step.

The CHAIRMAN. Would it be convenient for you to return at 2 o'clock, Colonel, for such cross-examination as the commission wishes to make?

Col. KUTZ. Certainly.

The CHAIRMAN. We will take a recess at this point, then, until 2 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

STATEMENT OF LIEUT. COL. KUTZ—Continued.

The CHAIRMAN. You may proceed with your formal statement if you have anything further, Colonel.

Col. KUTZ. I have nothing further to add, Mr. Chairman.

The CHAIRMAN. Would the elimination of the 4 per cent gross-earnings tax make it possible to make a 5-cent fare in Washington on both lines?

Col. KUTZ. Well, I have not thought very much about it.

The CHAIRMAN. If that is an embarrassing question just now do not answer it.

Col. KUTZ. Well, I should say yes.

The CHAIRMAN. What per cent of the operating cost is paid out in maintenance requirements?

Col. KUTZ. That is a question—

The CHAIRMAN. I mean paving requirements, not maintenance.

Col. KUTZ. Paving requirements—I can not answer that question.

The CHAIRMAN. Is it substantial?

Col. KUTZ. Yes; I think it is quite a factor.

The CHAIRMAN. Do you believe in abolishing the tax on street railways?

Col. KUTZ. Yes.

Mr. WARREN. Altogether? All taxes?

Col. KUTZ. You are talking about municipal tax, I take it?

The CHAIRMAN. We are talking now about municipal taxation.

Col. KUTZ. I think the tax on the roadbed ought to be abolished, but not necessarily on the power plant.

The CHAIRMAN. Or upon the equipment?

Col. KUTZ. Or upon the equipment.

The CHAIRMAN. Do you think that the zone system is a proper thing in certain localities?

Col. KUTZ. Yes, I do; from the standpoint of equity or standpoint of measured service, I believe the public should pay for what they get.

The CHAIRMAN. But you believe that the physical conditions in Washington are such that a zone system will not apply?

Col. KUTZ. Well, I am not prepared to say it would not apply, but I will say, that in my opinion, if it were left to the judgment of the people they would prefer a flat rate. In fact, it might be a big

step toward equalizing these two companies and it might be that this commission might feel impelled to adopt such a plan in order to equalize the two companies.

The CHAIRMAN. You stated that the Washington Railway & Electric Co. owns the Potomac Power Plant?

Col. KUTZ. They own all the stock in it.

The CHAIRMAN. And that plant supplies us with our light?

Col. KUTZ. All the heat and light for the city and all the power for the Washington Railway & Electric Co.

The CHAIRMAN. Does the company keep the accounts of these two companies separately?

Col. KUTZ. Yes.

The CHAIRMAN. That is a requirement of your commission?

Col. KUTZ. They are required by law to maintain the power company as a separate and distinct corporate entity. The commission has in times past taken exception to its contractual relations existing between the power company and the railway company, expressing the opinion that they were not dealing with each other at arm's length, but since the commission completed its valuation of the power company's property and established rates for service based on that value, it is a matter of indifference to the company whether the two are in common ownership or in separate, distinct ownership.

The CHAIRMAN. Referring now to the suggestion that the city should own the roadbed and that they should lease the operation to some private concern—is there any city in the United States which you know of that operates under such conditions?

Col. KUTZ. No, unless you would consider the New York City subways as in that class. The subways, as I understand it, are owned by the city, are they not?

The CHAIRMAN. Are you addressing the question to the commission?

Col. KUTZ. Well, I did not mean to put it that way.

Commissioner GADSDEN. No.

Col. KUTZ. They are separately owned?

Commissioner GADSDEN. The city has an interest, but not the major interest by a great deal.

The CHAIRMAN. Does this system prevail in any of the European countries?

Col. KUTZ. Not to my knowledge; no.

The CHAIRMAN. What would be the particular advantage in having the city own the roadbed and not the equipment and permit private operation?

Col. KUTZ. Well, the two advantages that I see to the municipality's owning the roadbed are the question of paving, for which I think the responsibility can not be divided between the company and the municipality—the maintenance of the track or maintenance of the roadbed must be the function of the company or a function of the municipality; you can not place the burden of maintaining the rails on the company and the burden of maintaining the pavement on the city without constant friction, because the bulk of the paving between rails in the city of Washington is destroyed by the faulty foundation of the tracks. Now, the other advantage I think in the city's owning the rails is the ease with which extensions can be made

where the interests of the community demand extensions; the privilege of making those extensions irrespective of the wishes or will or financial condition of the street-railway company. Sometimes they have a will to do a certain thing and have not the financial ability to do it.

The CHAIRMAN. Would not that result in the municipality's building tracks out into certain sections of the city where operation would not be profitable and thereby compelling the city to have that investment for a long time without getting any return?

Col. KUTZ. No; they can adjust all that in the rentals which they charge the operating company. They can make that higher or lower; they can make it low on suburban lines or high on the city lines. It seems to me there is such flexibility in there that they can make the street railway system absolutely self-sustaining or, if they want to start out on the assumption that a 5-cent fare is the maximum fare that should be charged, they can adjust their rentals so that the company would be able to operate successfully on a 5-cent fare.

The CHAIRMAN. How would you take care of the rental if the company was operating on a branch line that did not even pay operating expenses?

Col. KUTZ. Well, I think that such a line, of course, should not be built. If it was an existing line, I would absorb the shortage on one by an increase on another.

The CHAIRMAN. Would it not be quite a temptation on the part of city officers to extend lines out into different sections of the country for the purpose of developing them, hoping thereby to build up the city and spread the population over other territories regardless of the effect it had and regardless of the need?

Col. KUTZ. Well, of course, our legislation in the District of Columbia is in the hands of Congress and we would assume that Congress has wisdom not to do the absurd thing.

The CHAIRMAN. Do you advance this idea as applicable alone to Washington or should it apply to all cities?

Col. KUTZ. I have thought of it only in connection with the District of Columbia. It is our problem here; and I think in many of the large cities of the country the zone system is essential. I do not believe it is essential in Washington. It may be advisable for certain other reasons.

The CHAIRMAN. If the city should own the track why should it not likewise own the equipment and operate the plant?

Col. KUTZ. Well, that is simply a question of judgment. In my own opinion, private operation would be more successful than public operation, and if you have private operation the cars and equipment should be owned by the operating company.

The CHAIRMAN. Congress has given your commission the right to fix fares. Do you believe in the flexible fare?

Col. KUTZ. Such as outlined by the Secretary of War as desirable—

The CHAIRMAN. Generally should fares be fixed in the franchise or in the law, or should they be open to adjustment to meet operating conditions?

Col. KUTZ. I believe they should be adjusted from time to time by the commission established for that purpose.

The CHAIRMAN. Do you apprehend that there would be any difficulty in making a reasonable adjustment of fares to bring in a fair return upon the property after you had fixed the value?

Col. KUTZ. Yes; in Washington I do, because of the peculiar situation of the two companies. If the companies were noncompetitive it would be a very simple matter to take the valuation of each and establish rates of service that would yield to each a fair return on the fair value. But with two competing companies it would be almost suicidal, it seems to me, for one company even to accept a higher rate of fare with the other company operating on a lower rate of fare. I think the cream of their business would be diverted to the company with the lower rate of fare. Not only would there be a distinct loss in the total number of passengers carried but there would be enormous congestion on the other line, such a congestion as would make the service to the public as a whole very much worse than it is to-day.

The CHAIRMAN. Did you say that the gross revenue of these companies during the past year is less than it was prior to the war?

Col. KUTZ. No, no; very much greater. It is greater in 1919 than it was in 1918, the number of passengers carried. But prior to the war the Washington Railway & Electric Co. with its greater mileage was also carrying a greater number of passengers. To-day the companies are each carrying practically 90,000,000 passengers yearly.

Mr. WARREN. How many?

Col. KUTZ. About 90,000,000.

Mr. WARREN. Each of them?

Col. KUTZ. Yes.

The CHAIRMAN. What has caused that shift in the riding habit?

Col. KUTZ. Well, Washington very greatly increased in population during the war, possibly 100,000. The great majority of those are in the congested part of the town and are better served by the Capital Traction Co. than by the Washington Electric.

Commissioner SWEET. You are a West Point graduate, are you not?

Col. KUTZ. Yes.

Commissioner SWEET. Have you had anything to do with the street railroads in other cities besides Washington?

Col. KUTZ. No, nothing whatever.

Commissioner SWEET. You are an engineer?

Col. KUTZ. Yes.

Commissioner SWEET. Does the difficulty that you speak of with regard to the tracks of a street-railroad company and the defects that arise from an improper foundation for them—is that the only reason you have for thinking that the tracks ought to belong to the municipality?

Col. KUTZ. No.

Commissioner SWEET. I mean outside of the suburban extensions. I notice you spoke of that.

Col. KUTZ. Those are the two reasons.

Commissioner SWEET. Any others besides those two?

Col. KUTZ. No; I do not think of any.

Commissioner SWEET. Could not the matter of extensions be properly cared for by the public—I am not speaking necessarily now of

the city of Washington but of cities generally. Do you see any reason why the matter of extensions could not be properly cared for by a proper system of control on the part of the city, having the initiative in the city where it is necessary, or a restrictive right on the part of the city if the company should be inclined to extend where it ought not to—that you could not handle it in the way of control by proper legislation and control on the part of the city?

Col. KUTZ. Well, it is controlled in Washington to-day by the authority given to the public-utilities commission. But I do not think it is satisfactorily controlled. We can curb the company in so far as unreasonable extensions are concerned and we have certain powers to compel the construction of extensions. We have ordered several extensions since this commission was established, but—

Commissioner SWEET. Have you any means of enforcing your order?

Col. KUTZ. By means of fines.

Commissioner SWEET. Where you have given such orders they have been observed or obeyed?

Col. KUTZ. They have. All extensions that have been ordered have been built.

Commissioner SWEET. But as I said, I am not restricting this now to the city of Washington. Do you see any reason why that matter of extensions could not be cared for by proper legislation under the control of the city just as well if the tracks were owned by private corporations as if they were owned by the city?

Col. KUTZ. I think in public ownership the city would have a great deal more freedom of action.

Commissioner SWEET. But if under the law it had absolute control and power, it could do the same, could it not, practically as if it owned the tracks, in regard to extensions?

Col. KUTZ. Well, I doubt very much whether it could compel a private company to make extensions that would not reasonably be compensatory. That is one of the fundamentals of our law, and based on the Wisconsin law; and I think the commissions' fundamental law is much the same throughout the country.

Commissioner SWEET. Would not the municipality run up against exactly the same difficulty in private operation over tracks laid where there would not be enough income produced to pay operating expenses?

Col. KUTZ. I think that could be adjusted in the rental. Take, for instance, this local situation: Rock Creek Park is a great asset to the city; it is accessible now to the residents who own automobiles and to a limited few in the vicinity of the park, but it would be open to thousands of others if we had a street-railway line running from the vicinity of Brightwood Reservoir across the park; and such a line would be enormously patronized on Sundays and Saturday afternoons and on holidays, but it probably could not be operated seven days a week to any great advantage. Such a line, I think, if built by the city, could be operated by existing companies and the rental which would be charged for such a line would be small—it would be insignificant, because the company would not get very much out of it, but it would enable it to run its cars there

on Sundays and holidays and bring the people into the park when they wanted to go there, and service on the other five days of the week would be incidental. Now, from an operating standpoint, that service would pay on holidays and the people, I think, could well afford to make that investment even though they got but a small return upon the investment, but it would be an investment in the interest of the people as a whole.

Commissioner SWEET. You are stating now a rather exceptional case, are you not? Because you have in mind the fact that the city and, in one point of view, the people of the United States have made an investment in Rock Creek Park, and you think that it would be a good thing for the general public to get all the benefit out of that park that is possible and that a street railroad there would facilitate that purpose.

Col. KUTZ. In other words, I look upon street-railroad lines as only a special form of roadway. We build roads into the park for the accommodation of the rich man's vehicle. Why should we not build roads into the park for the accommodation of the poor man's vehicle, which is the street-car?

Commissioner SWEET. Well, the same thing would apply to a great many other things. For instance, access to the Tidal Basin for bathing purposes, and a lot of other things that seem to be somewhat more emphasized in Washington than in most other cities. Is not that true? Are not we inclined to a little more paternalism here than in other cities?

Col. KUTZ. I do not call that paternalism. I am not a great believer in paternalism myself. Let me give you another example. The commission held a hearing a short time ago as to the advisability of building tracks on B Street from Seventh Street west to Seventeenth or Eighteenth or Nineteenth to the group of Government buildings recently erected there. The estimates submitted to the commission indicated it would cost \$700,000 or more. Now, such a line would be a great convenience to a lot of people and probably would not add anything to the revenues of the company. I do not believe they would haul any more passengers, but they would haul them a little closer to where they want to go. In other words, it would improve the service so far as those people are concerned, but it would not add one penny to the revenues of the company at present. The commission did not order that extension, having in mind the very peculiar conditions existing at the present time and the difficulty in obtaining additional capital, probably influenced by the fact that some other extensions which were under consideration seemed to represent a better investment than that one.

There is a case in which a community I think would, if it owned all the tracks, extend that system for the accommodation of the thousands of people who go there every morning and come back every night, and yet the private company will not do it unless it is compelled to do it.

Commissioner SWEET. What you were saying, Colonel, seems to me to rather emphasize the need of cooperation between the electric-railway companies and the public. In other words, you are laying particular stress upon the fact that the general public ought to be served under various circumstances that you have mentioned here—

like the Rock Creek Park and the B Street case—even though the company operating them might not make any money out of that particular service. So that you are recognizing what Secretary Baker spoke of this morning as the need of considering the subject from the standpoint of the public as well as of the company and its officers. Is not that your view?

Col. KUTZ. Yes; surely.

Commissioner SWEET. Do you think that the general public throughout the United States are informed on that subject and realize the extent to which the public ought to cooperate in the enterprise of street railroading?

Col. KUTZ. Well, I think it is a very vital problem in every municipality.

Commissioner SWEET. Is not that one of the very important things expressed by Secretary Baker as necessary to educate the people upon?

Col. KUTZ. Yes.

Commissioner SWEET. If the people of the United States understood the situation of street-railroad companies to-day just exactly as you and well-informed people do understand it, the difficulties they are encountering to make even enough money out of their nickel fares to pay operating expenses, to say nothing about interest on the investment and the need that everybody recognizes of making the securities sufficiently safe and certain of paying a fair rate of interest so as to attract new capital—that is necessary, is it not?

Col. KUTZ. Yes, but—

Commissioner SWEET. If the people understood that, do you think there would be any hesitation on the part of the general public to paying larger fares or fares that would be commensurate with the service that is rendered?

Col. KUTZ. I think they would be perfectly willing to pay fares commensurate with the services rendered as far as sufficient to pay operating expenses and a fair return upon a fair value of—

Commissioner SWEET. That is it exactly.

Col. KUTZ. But let me illustrate. We will assume that 7 per cent represents a fair rate of return. Now, suppose the company can not borrow money at that rate; shall the rate of return be increased in order to establish the credit of the company and enable it to borrow more money to make extensions, or shall the municipality make those extensions itself when it can borrow money at a very much less rate? Is it not economical for the city to own its tracks rather than to pay the company to own them at such a rate that they can borrow money on? In other words, we give the company here during this war period, the street-railway company and the other companies we have power over, 6 per cent return only during this period of readjustment. The companies come to us and say 6 per cent may be a fair rate of return upon our fair value, but it is not sufficient to enable us to borrow money. Now we want the extension. The city can borrow money at less than 6 per cent. The company must have more than 6 per cent before it can borrow money.

Commissioner SWEET. Then you would name that as the third reason why it is better for the general public to own the street-railroad tracks?

Col. KUTZ. Yes.

Commissioner SWEET. Could not that argument be carried to an absurd limit in almost every enterprise? If the Government can borrow money at a lower rate than anybody else, why not have the Government borrow money and invest it, and all that sort of thing?

Col. KUTZ. That is true, and if it were not for the other two advantages, I do not think I would advocate it.

Commissioner SWEET. You would not say much about that one?

Col. KUTZ. No, because I believe there are certain advantages in private operation which you would not get from public operation.

Commissioner SWEET. In this matter you spoke of first, which you seemed to regard as the strongest reason for the city's owning the tracks, let me ask you whether a plan of this kind would not answer the purpose as you see it: Let the city do the paving originally—that is, if a new street is to be paved let the city pave it—and then have a provision in the franchise by which the company would be called upon to replace or repair any damages to that paving that it might cause and leave that, we will say, in Washington to you as engineer commissioner or in any city to the proper authority. Would not that be just? Would not that answer practically the purpose you have in mind with regard to city ownership of the tracks?

Col. KUTZ. My contention applied to the maintenance of the pavement rather than to the cost of the original pavement. That, I think, might well be assumed by the city.

Commissioner SWEET. You understand that now in both cities the street-railroad companies are required to pay the original cost of paving between the tracks and a little outside?

Col. KUTZ. Exactly.

Commissioner SWEET. Is that, in your judgment, fair?

Col. KUTZ. No. I think that the city can probably afford to do that better than to have the companies do it.

Commissioner SWEET. Do you see it the same as Secretary Baker did—that that is an unjust burden upon the riders upon street-railroad cars?

Col. KUTZ. It increases the capital investment. In our valuations we considered that.

Commissioner SWEET. Does it not all have to be paid, in the final analysis, out of the nickel that the company receives?

Col. KUTZ. It certainly does.

Commissioner SWEET. And the riders on the cars furnish the nickels?

Col. KUTZ. They do.

Commissioner SWEET. And the people who have automobiles, and do not patronize the street railroads—do they pay any part of that paving, under these circumstances?

Col. KUTZ. Any part of the paving between the rails?

Commissioner SWEET. Yes; any part of the paving between the rails.

Col. KUTZ. No.

Commissioner SWEET. Do you think that is just, as between one part of the community and the other?

Col. KUTZ. Well, they probably do not use that part of the street very much. They probably stay off of that part of the street, except when it is necessary for them to cross.

Commissioner SWEET. Don't they have to cross the tracks? Don't they require good paving there?

Col. KUTZ. Yes.

Commissioner SWEET. But do they pay, under the present system? Do the owners of automobiles pay any part of that paying between the tracks?

Col. KUTZ. No.

Commissioner SWEET. That burden is thrown on the poorest part of the community that can not afford automobiles, largely, is it not?

Col. KUTZ. Yes.

Commissioner SWEET. Do you think that is the right thing to do?

Col. KUTZ. Well, it is just as fair as to impose any tax on the street-railway company. The tax that is put on the gross revenues of the company comes out of the nickel paid by the street-car traveling public, and it goes into the general treasury for the benefit of the poor and the rich alike. There is no difference between the two—

Commissioner SWEET. Two wrongs do not make a right; do they?

Col. KUTZ. No; but I say it is in the same class with taxes.

Commissioner SWEET. You did not quite answer my question, as to whether the plan I suggested of having the original paving done by the city and the injury that might be caused by defective work on account of the railroad company cared for by the company.

Col. KUTZ. I think that would be eminently fair.

Commissioner SWEET. Whether that would not be eminently fair, and as good an arrangement from the public's standpoint as to have the tracks owned by the city—I mean upon that one feature of your proposition?

Col. KUTZ. No, I do not think so; because if the city were to own the tracks it would consider, in connection with the paving of the street, the condition of the tracks, and the street would be paved at about the time it became necessary to renew the rails or the foundations of the rails. In other words, it would be done together, as one job, when, considering all the circumstances, the time had come to pave the street.

Now, when we put an expensive pavement down—concrete foundation and asphalt top—and we call on the company to pave the space between its rails and for 2 feet exterior thereto with a similar pavement, the company may find itself with ties that are only half worn out, and it is a question whether those ties are to be wholly replaced or whether they are to be bedded into a concrete base, and probably it would be wise to take them out and throw away the unexpired life of those ties; and the question arises whether the rails should be replaced with heavier rails, and also there is a question sometimes, as to whether overhead should be converted into underground, in connection with paving. There are a great many questions which, to my mind, would be better solved, if the ownership of everything in the street bed was in the city. I go so far as to say that I believe that all pipes and conduits and everything in the streets should be owned by the city and leased only by the utilities that need them.

Commissioner SWEET. Not to have private corporations digging up the streets to get at their own property?

Col. KUTZ. Not to have them own any structures in the street. Then you can go ahead, when you come to pave the street, and if

there is no conduit in the street you will put one in there, even though there is no immediate demand for that conduit, because there will be a demand in the course of a few years. If there is no gas main in the street, you will put one down, even if there is not a single applicant for gas; and if there is need for street-car tracks, you will put them down.

Commissioner SWEET. You recognize the fact, do you not, that it would be a difficult and very long-drawn out proceeding to change the street railroads of the United States in the various cities over to that system now?

Col. KUTZ. Yes.

Commissioner SWEET. Would it meet the present acute situation at all? With bankruptcy staring in the face a whole lot of these companies, do you think such a proceeding as that could be put into operation before they were completely down and out?

Col. KUTZ. No; but I do not see why we should not begin right now and say that every additional mile of street-car track within the city shall be put down at the expense of the city. There is no reason why that could not be done, and that would settle the question of extensions once and for all. The rest could remain in the ownership of the companies pending a complete settlement of this question.

Commissioner SWEET. That seems to me to be feasible, as far as that is concerned. But how about the tracks that are already laid and belong to the companies? How would you transfer the title to the general public?

Col. KUTZ. That would have to be valued and paid for.

Commissioner SWEET. And then money would have to be raised by the municipalities to buy them?

Col. KUTZ. Yes.

Commissioner SWEET. And municipal bonds given, I suppose, and so on?

Col. KUTZ. Yes.

Commissioner SWEET. How about the rolling stock—the cars and equipment of the railroads? Would you have them belong to the companies or to the public?

Col. KUTZ. I would have them belong to the companies. I believe in private operation.

Commissioner SWEET. That is all I have.

The CHAIRMAN. Just one question. You spoke of valuing this property, and that you expected the report to be ready within a month. Can you state for the record the differences in the amounts claimed by the railroad company and those presented by your engineers? If you have not your figures at your fingers' ends, you may supply them for the record.

Col. KUTZ. I can insert in the record the estimates submitted by the companies and the estimates submitted by the commission's accountants and by the commission's engineer, first, as to the historical cost, and second, as to the reproduction cost. I can not give you, at this time, any figures representing the views of the commission.

Commissioner SWEET. I understood you to say this morning that you considered it to be to the disadvantage of a city to have two railway systems, such as Washington has. Did you say that?

Col. KUTZ. Yes.

Commissioner SWEET. You think that, in the matter of telephones and street railways, and perhaps other similar public utilities, there ought to be a monopoly?

Col. KUTZ. Absolutely; a regulated monopoly.

Commissioner SWEET. A regulated monopoly?

Col. KUTZ. Yes.

Mr. WARREN. Where such a situation does exist, I gather from what you said that you think the zone system would be the best way of meeting it, adjusting the affairs of the two systems? I do not want to ask you anything that will embarrass you.

Col. KUTZ. You mean as to the two systems such as we have in Washington?

Mr. WARREN. Yes; or in any other city where such a thing may exist.

Col. KUTZ. It seems to me that two remedies might be applied to the local situation that would go far toward equalizing matters. One is to change the present form of taxation, changing the base from the gross revenue to the net revenue; and the other is to establish a zone system which would bring about equality, or reduce the inequality due to the fact that one has 10 lines going to the District boundary and the other has 2 lines going to the district boundary.

Mr. WARREN. In applying that, it would be designed, I suppose, to have the zone system apply to the longer line so as to equalize the fare in that way?

Col. KUTZ. The suggestion as made by one of the companies before the commission was to establish zone points which were approximately equidistant from the central part of the community, and yet which were more or less natural zone points.

Mr. WARREN. And have the fares the same on the corresponding zones?

Col. KUTZ. The fares the same within that irregular line. Then an additional fare of 2 cents for a ride outside of that line.

Mr. WARREN. But for the same fares on a corresponding zone for both companies?

Col. KUTZ. Yes.

Mr. WARREN. Any suggestions you have made to the commission, or that were made to you, perhaps, or that you have repeated to the commission, of public ownership of the roadbed—that would include simply, in a place like Washington, where the underground system of distribution exists, the ownership of the conduit and the conductor, electric conductor in the conduit?

Col. KUTZ. I should say it certainly ought to include the contact bar in the slot.

The electric distribution system of the Washington Electric Railway Co., is intimately bound up with its power and lighting distribution system; so just the point at which public ownership should end, would be a question for study and very careful consideration.

Mr. WARREN. In the case of an overhead wire system, would the suggestion include the ownership of the overhead wire equipment?

Col. KUTZ. No; I should think that would be better left to the operating company. It might be taken over or not, dependent on local circumstances.

Mr. WARREN. The principal ground on which that suggestion appeals to you, I take it, is to eliminate the divided responsibility for the pavement and the condition of the surface of the highway?

Col. KUTZ. Yes. The very great difficulty I see in the maintenance of an adequate pavement between the rails, with the responsibility for pavement resting on one body and the responsibility for the foundation of the rails and tracks resting on another body.

Mr. WARREN. Would there not be some danger of that divided responsibility merely shifting from the responsibility for the maintenance of the pavement to a responsibility for accidents? A good many accident claims are based on the condition of the pavement or of the track?

Col. KUTZ. If the city owned the tracks and maintained the pavement, it would be solely held responsible for accidents due to defects in that pavement; as it is now, they generally sue both the company and the District.

Mr. WARREN. They are going to get one or the other?

Col. KUTZ. Yes.

Mr. WARREN. What you said about taxes—the desirability of relieving the company from taxes—I suppose would apply, in your judgment, to any other burdens which are not technically taxes but amount to the same thing—any taking of money from, or imposing expense upon, the companies. For instance, the payment for traffic officers or the charging of license fees for cars?

Col. KUTZ. Yes, I think that is an injustice to the street-railway companies, to make them bear the entire expense of traffic policemen, because the number of street-cars passing such a point is probably less than the number of automobiles passing the same point in a given time.

Mr. WARREN. And, too, the automobiles probably require traffic regulation more than the street-cars?

Col. KUTZ. Yes.

Mr. WARREN. That would be on the theory, I presume, applying to all those burdens, that the car rider ought not to pay indirect taxes which his financial condition might not oblige him to pay directly?

Col. KUTZ. This commission has opposed all forms of free service; has opposed free service even to its policemen and firemen, though they now receive it, as a matter of law.

Mr. WARREN. I think that is all.

The CHAIRMAN. That is all, Colonel. Thank you very much. (Witness excused.)

STATEMENT OF MR. ROGER W. BABSON.

The CHAIRMAN. Now, Mr. Babson, you may proceed to talk to us in your own way. You know what the problem is.

Mr. BABSON. That is very kind of you gentlemen, I am sure.

It seems to me that there are three general methods of pursuit. We have, first, the method of private ownership and public regulation, which apparently has fallen down, or else we would not be here to-day.

Secondly, we have the proposed systems of municipal ownership and service-at-cost plans and similar methods, which seem to me very

good from the street-railway security holders' point of view, but I sort of feel that some day there may be a back-fire to such methods. The third method would be for the communities to relieve the street railways of their taxations and various other burdens and permit them to charge what fares they wish to charge, but to protect the public by permitting a proper competition in the line of judicious jitney systems.

I feel very strongly that, in the end, the street railways and the public would be better off by opening the throttle and letting the street railways and the automobiles fight the thing out on a service basis, and each class charge what they need to do the business. In some communities the street railway would go out of business, and we would have a bus service instead. In other communities the buses would go out of service, and we would have a street-railway service instead. But in all the communities we would have decent service, which we are not having at the present time.

I think the street-railway difficulties began in Massachusetts, for instance, when the State came in and practically fathered the roads. The State approved the issues of securities, and protected the roads against competition, and the roads became lazy and indifferent, the service fell down, and that was the beginning of the trouble.

If the roads had been obliged to fight for their existence from the first, had been free to charge what fares they wanted to charge, and had been dependent on service for holding their business, I do not think we would have the trouble so acute as we have it at the present time.

Now, of course, if a monopoly existed, I would believe in the regulation of that monopoly, because it is necessary. If one person owned all the coal in the country, I certainly believe that the price of coal should be determined by some commission. But so long as different interests own the coal, and so long as there are other kinds of fuel, I think that in the end it would cost the public more, either in money or in poor service, to have the price of coal regulated at the present time.

I do not know that I have made myself clear, but I feel very keenly on that point.

The real difficulty with the street-railway situation came with the automobile. It is not the labor problem, as I see it. It is not the high cost of materials. Those are factors. But labor has always gradually increased in price; the materials have gradually increased in price. It was Henry Ford who hit the street-railway system a blow between the eyes. If he had only been bright enough to sell street-railway securities short when he built his plant, he would have been making double the money that he is making now.

Take Massachusetts, for instance: There are less than 5,000 street-cars in Massachusetts, and there are 186,000 automobiles. There are 186,000 automobiles and less than 5,000 street cars. There is the fundamental difficulty, as I see it, with the street-railway situation.

Now we are in it, the question is, how are we going to get out of it. We can not get out of it, certainly, by having our hands tied.

There are only two ways. Either to sell out to the communities, through municipal ownership or service-at-cost plan, or else have a free rein to win out on the basis of service.

There are some communities where the street-railway companies can not win out on the basis of service; but there are other communities where I feel very strongly that the street railways could win out if they were free to charge what the traffic would bear and were freed from restrictions on such questions as paving, which is simply an inheritance from the old horse-car days; the reason we have to pay for the paving between the tracks is that we used to have horses that wore out the dirt between the tracks. And I further believe that in Boston, for instance, where we have the 10-cent fares to-day, if the city and the State were not holding the umbrella over the Boston Elevated Co., and the Boston Elevated Co. was free to charge any fare that they wanted to, but had to stand on its own basis, the people of Boston would get better service and lower fares than they have got to-day.

The CHAIRMAN. Please develop that thought, Mr. Babson. Give us your reasons for it.

MR. BABSON. Well, it is the old principle that what is everybody's business is nobody's business. We had what is called the Massachusetts Electric. The Boston companies were controlled, around Boston, by the Massachusetts Electric Co.; that was the holding company. All the stock of the Bay State was owned by the Massachusetts Electric.

We used to have stockholders' meetings once a year; and we would have a couple of hundred people present, and we would have real meetings, and real interests. There has been a service-at-cost plan adopted there, and the fare has been raised to 10 cents. Last Thursday a stockholders' meeting was called and over 3,000 notices were sent out, printed notices, two weeks in advance; and there were only 3 people there—a clerk of the company, a lawyer from the attorney's office and myself, out of the whole 3,000. Why? Because we feel that the State is holding the umbrella; and the interest is gone.

The CHAIRMAN. You are sure of your reward?

MR. BABSON. Of course, practically we are not, because we simply have a contract for 10 years, and even now they are talking about having the State break that contract, and not wait the 10 years. I believe that ultimately in this world everything has to stand on its own basis. Unless a trade is good for both parties, it is not good for either party in the end. Sometime or other, one side or the other is going to kick over the traces. A bargain that is not good for both sides is not good for either side, ultimately.

The city of Boston is trying the service-at-cost plan now, and we have got the 10-cent fare. It costs you 10 cents to ride a quarter of a mile in Boston on the street railway. The same system has been adopted by the Bay State, which is the largest street railway in the country, I understand, which takes in around Boston. So much for the stockholders' interests.

The wageworker is in the same position. He looks upon it as a grab bag, you might say; that it is not coming out of anybody especially, that it is coming out of the whole public in general, and that the spirit of the age is to grab, and consequently his restraints are off.

It may work out all right, but I feel very strongly that before we go headlong into municipal ownership or service at cost we should

free the street railways from their shackles, that we should stop persecuting them, and give them an opportunity to save themselves. And I am not sure but that, in giving them an opportunity to save themselves, some communities would save themselves likewise; because the relation between the prosperity of a community and the prosperity of its street-car system is very, very vital.

A monopoly should be regulated. I feel that very strongly. I think that before the auto came the commissions did right in regulating these street railways and controlling them; but now that the auto has come into the field, it seems to me that a monopoly no longer exists, and there is no reason why the States and cities should shackle these roads, until they again become a monopoly. I do not know whether I have made myself clear or not.

I stand very strongly on the belief that before we shift bodily over to municipal ownership or the service-at-cost plan we should give the street railways a chance to work out their own salvation. If they can do it, then the problem is solved. If they can not do it, then we have to consider municipal ownership or service at cost. But before we take up the municipal ownership or service at cost, let us give the street-railway companies a chance to work out their own salvation by removing the restrictions, by removing the taxation, by quitting the persecutions, and by giving them an opportunity to charge what fare they want to charge.

The CHAIRMAN. Let me see if I understand just what your plan is. In the city of Washington we have street railroads and automobiles. Would you favor repealing the ordinance which establishes the tax, assuming that there is an ordinance here?

Mr. BABSON. I would.

The CHAIRMAN. And also repealing the paving costs?

Mr. BABSON. Yes. There is absolutely no moral or economic or physical reason for the paving costs.

The CHAIRMAN. And repealing the law which gives the commission the right to fix reasonable charges?

Mr. BABSON. That depends on whether they have a monopoly or not. If they have a monopoly, I think that the commission should establish rates.

The CHAIRMAN. You are familiar with the city of Washington. You know the number of automobiles?

Mr. BABSON. I know that there is practically no jitney service in Washington; I do not know why that is.

Commissioner MEEKER. The trouble is that jitneys here charge \$1.25.

Mr. BABSON. Those are not jitneys. Those are cars.

The CHAIRMAN. There is a monopoly, in your judgment, where a street-car company has not the jitney competition?

Mr. BABSON. Yes.

The CHAIRMAN. But the fact that there are hundreds of thousands of automobiles, privately owned, carrying persons to and from business otherwise, but not charging for it, is competition, of course?

Mr. BABSON. Yes; and that has been what has put the street railways on the blink—the automobile.

The CHAIRMAN. You do not expect to eliminate competition between that form of conveyance and the street-car company; do you?

Mr. BABSON. No; and that has removed the great cause of public regulation. That has opened the door. When I was a boy, or even 15 years ago, it was either a question of taking a street-car or a slower conveyance; the street-car people had the service. That is the real thing that counts in this world—service. The street-car people had a monopoly, not of the streets, but they had a monopoly of service. They could get you there quicker than any other form of conveyance. That is where their monopoly lay—not in the fact that they had the streets, but in the fact that they had the quickest service. Now that monopoly has gone.

The CHAIRMAN. Are you willing to suggest that where there are automobiles and no jitney service, the laws giving the commissions the right to fix just and reasonable rates should be repealed?

Mr. BABSON. Not for the first thing, no; I would not say that. I would say that the first step in such communities would be to relieve the roads of taxation and paving and various other forms of persecution. That is the first step.

The CHAIRMAN. But I believe you do say that, even where there are automobiles, they in and of themselves prevent the street-car company from getting excessive charges, in the absence of regulation?

Mr. BABSON. Yes; they do remove the great need of regulation; but I would not give up the regulation. I should keep the regulation up my sleeve, in such cases.

The CHAIRMAN. We are always going to have automobiles with us, of course?

Mr. BABSON. Yes.

The CHAIRMAN. So that there is always going to be competition between that form of conveyance and the street-car?

Mr. BABSON. Yes; and a great deal more.

The CHAIRMAN. Then, in the last analysis, if your conclusion is right, we would have to remove all restrictions from the street-car companies for all time?

Mr. BABSON. Well, I think that sufficient unto the day is the evil thereof. What we are interested in now is getting them out of their present predicament. I think the way things are moving it is a pretty unsafe thing to say what we shall have to do for all time; but I think right now that the next step is to remove the restrictions, taxations, and the various forms of persecution, as I call it, and give them a chance to save themselves, just the same as the man in the coal business.

The CHAIRMAN. What do you refer to as "persecutions?"

Mr. BABSON. I mean these questions about the traffic, for instance: in some cities where they have to pay for a portion of the traffic officers, for example. Also I think this matter of paving between the rails, at the present time, has absolutely no excuse whatever, because in a great many cities it is the only part of the street that is used by the automobiles. I took a trip yesterday from Boston out, and it was a double-track road, and the only place where the automobiles could run with any degree of comfort was on the paving which was put in by the street railways. The boulevard on each side of this paving was very rutty and very bad, and no automobile could run in it with any comfort.

The CHAIRMAN. Now, you have described traffic conditions and the paving. What other persecutions have you in mind?

Mr. BABSON. I should say the general taxation. In Massachusetts we have, I think, three forms: We have the property tax and we have the excise tax and we have the franchise tax.

The CHAIRMAN. Do you regard as persecutions most of these efforts by which the public seeks to impose charges or burdens upon the street-railway companies?

Mr. BABSON. Not when they had a monopoly. I believe in the taxation of monopolies, absolutely. If I had charge of the taxing of this Government, I would raise every cent by the taxation of monopolies and land values and natural resources. I would take off income taxes and take off all taxation on enterprise and effort. I should raise my money from the taxation of monopolies and natural resources and land values, and so forth. But when that monopoly has gone by, and when the street-car business is no different from the dry-goods business or the restaurant business or any other business in town—which is the condition it is in in most of the communities to-day—I should relieve it from those burdens.

The CHAIRMAN. You mean that the city should permit the fight to go on between the street-car and the jitney service and see who wins out?

Mr. BABSON. I do not think I used the word "fight." If I did, I did not mean to. I would let competition go on, however.

The CHAIRMAN. Let us assume in a city of 100,000 population that competition between the street-car and the jitney was so intense that the street-car company had to abandon its service for a while, and the jitneys were left as the exclusive means of conveyance. Would you think a city could permanently exist with nothing-but the jitney service?

Mr. BABSON. I think there is a difference between the jitney service. It depends on what you call jitney service. We have on Fifth Avenue, New York, for example, a bus service. Would you call that a jitney service?

The CHAIRMAN. I should call that bus service. I suppose after all it is rather an elaborate form of jitney; is it not?

Mr. BABSON. I feel that in the majority of our cities, if the bus had come before the street railway, there would be no street railways at all.

The CHAIRMAN. Do you feel that in the economic development of this question the jitney may win out over the street-car?

Mr. BABSON. Yes; in certain communities, and in a great many of the suburban lines, absolutely.

In this Bay State Street Railway, which I think is the largest street-railway system in the country to-day—I do not know about that, perhaps Mr. Gadsden can tell me—but I am unfortunately a director in that company, and we have over a thousand miles of track, and our own engineers testified that on 270 miles the company could better afford to run buses, gasoline buses. On 270 miles. Our own engineer has reported that, advising us to run buses on 270 miles, and rip up the tracks.

The CHAIRMAN. Has your board acted upon that recommendation?

Mr. BABSON. No; we got the service-at-cost plan, you know. We were getting 5 cents a year ago, and now we get 10 cents; so we are

simply going to wait and see what happens. In the meantime, we insiders are selling out just as fast as we can, and when the 10 years are up, you will not find your Uncle Dudley or any one of us that will own a share of stock or a bond.

The CHAIRMAN. You are doing what you said Henry Ford ought to have done?

Mr BABSON. Yes.

The CHAIRMAN. Do you believe that the bus would be able to give sufficient public service to the community represented by this 270 miles of suburban line?

Mr. BABSON. Yes; better service.

The CHAIRMAN. Better service than the street-car?

Mr. BABSON. Yes. I think everything is dependent on the service. I think it is all a question of service, and that ultimately is what will win out.

If you and I got into an argument about some horses, as to which was the better horse, we would not hold a hearing to determine which was the better horse. We would let them race. But on every other question under the sun that I know of except horse racing and boxing, we have to determine it by vote; and I feel that ultimately the thing is going to be decided on the basis of service, and that the sooner we make the test, the better off the companies will be, and the better off the communities will be.

The CHAIRMAN. How long have you had experience as a stockholder in street-railroad companies and as a director, Mr. Babson?

Mr. BABSON. Why, I graduated from the Massachusetts Institution of Technology as a civil engineer in 1898, and the first job I had was to hold a tape on the street railway, on the Bay State Street Railway, in which I am now a director. Out of the 1,000 miles, I worked in connection with the construction of 100 of those miles, as an engineer and surveyor. Then I went with a bond house, and we sold most of the bonds of the system, and then I started in business for myself, in reporting on securities.

The CHAIRMAN. So that you have been a student of it since 1888?

Mr. BABSON. A student? Well, I have been in the machine.

The CHAIRMAN. I meant a student in the broad sense.

Mr. BABSON. Yes. I am practically out of the stocks. I am still a director, but I have just enough to hold my job, and that is all. I still have bonds, but I do not pose as a stockholder.

The CHAIRMAN. What, in your judgment, is the future of the street-railway industry?

Mr. BABSON. I think in some communities, in the large cities, they will be profitably operated, and there will be a sound business for them. I think in other communities they will be disbanded. I do not think one problem can apply to all.

For instance, we assumed that candles had gone out of business when kerosene came, and that kerosene went out of business when gas came, and that gas went out of business when electricity came; yet, as a matter of fact, there are more candles and more kerosene and more gas being sold to-day than ever before.

I think that the street railways of the future will find their function with subways and elevated lines; and I think in a great many communities the street railway has come to stay. For instance, you

can get in from Brookline into the center of Boston more quickly by street railway than you can in a taxicab. That is the test. And I believe for that service the street railway should be allowed to charge, if it wanted to, as much as the taxicab.

On the other hand, there are hosts of other instances where you can travel better by taxicab than you can by street-car.

I think the thing ultimately is going to be solved on the basis of service, whatever system we have, whether we have municipal ownership or service-at-cost plans, or what not.

Commissioner MEEKER. You do not think any workingman can pay taxicab fares, even in Boston, do you?

Mr. BABSON. On the other hand, the workmen do not live in Brookline.

Commissioner MEEKER. I judged that you meant that as an illustration, to apply not merely to that service?

Mr. BABSON. In that case, I really think they could charge 10 cents, or more than 10 cents, perfectly satisfactorily. And the subways of Boston were not built to serve the working people. The subways were not built in the direction of the poor. They were built in the direction of the rich sections.

The CHAIRMAN. You stated a moment ago that the stockholder in the Boston company has lost his interest in the company because he is sure of his return, on this cost-of-service plan?

Mr. BABSON. Well, he thinks so.

The CHAIRMAN. For 10 years, at least. What effect has that system upon the efficiency of labor?

Mr. BABSON. I think it is poor.

The CHAIRMAN. You are not getting as efficient service now as you had before?

Mr. BABSON. No, we are not.

The CHAIRMAN. To what do you attribute that lack of efficiency?

Mr. BABSON. On the general principle that what is everybody's business is nobody's business, and the fact that it is the spirit of the age now to do as little as you can and get as much as you can.

The CHAIRMAN. There has been a great turnover of labor during the past few years, has there not?

Mr. BABSON. Yes.

The CHAIRMAN. You have had war industries up in Boston and the surrounding neighborhoods, have you not?

Mr. BABSON. Yes.

The CHAIRMAN. And they have paid very attractive wages; have they not?

Mr. BABSON. Yes.

The CHAIRMAN. And they have taken a great many men from the street-car industry, have they not?

Mr. BABSON. Well, practically they have not.

The CHAIRMAN. I thought they had.

Mr. BABSON. No; we have had to meet them by raising wages.

The CHAIRMAN. So that there has not been a very large turnover in your company?

Mr. BABSON. No. There has not been a large turnover. We have had a lot of stealing.

The CHAIRMAN. So that, even with your experienced men, you still have not as good service as you had before?

Mr. BABSON. No.

The CHAIRMAN. Is there more theft than there was before?

Mr. BABSON. With the 10-cent fare I can not say that there is, but that only went into effect the 1st of June. We first had a 7-cent fare and then an 8-cent fare, and we had a tremendous amount of stealing with the 7 and 8-cent fares.

I might say, by way of parenthesis, that I believe it is either a question of a 5-cent fare or a 10-cent fare. I feel that from experience, very strongly.

The CHAIRMAN. Could you not use tickets and have some middle-ground fare?

Mr. BABSON. Possibly with tickets, yes; but people do not seem to like tickets.

The CHAIRMAN. Why do you say private ownership and regulation has broken down?

Mr. BABSON. Because the roads, so many of them, are in bankruptcy.

The CHAIRMAN. Is that the result of private ownership and regulation, or is it the result of the war, with its attendant high prices, high cost?

Mr. BABSON. That is the result of the automobile.

The CHAIRMAN. The result of the automobile?

Mr. BABSON. The result of the automobile; absolutely. It is the automobile that puts the street railways where they are. We have less than 5,000 street-cars in Massachusetts, and we have 186,000 automobiles. There is the answer to the question.

The CHAIRMAN. Do you feel that if the war had not come your street-car industry in Boston would still be a broken-down institution?

Mr. BABSON. Yes; I do.

The CHAIRMAN. What was the condition before the war started?

Mr. BABSON. It was losing money.

The CHAIRMAN. It was losing money?

Mr. BABSON. Yes.

The CHAIRMAN. It was not paying its capital charges?

Mr. BABSON. No, sir.

The CHAIRMAN. How long has the company failed to pay the capital charges?

Mr. BABSON. The Boston Elevated never failed, as such, but the Bay State has failed for three or four years.

The CHAIRMAN. The war started in 1914.

Mr. BABSON. I thought you meant our war.

The CHAIRMAN. I think the prices began to rise the moment the European war started.

Mr. BABSON. Yes. I do not know what you are driving at.

The CHAIRMAN. I am trying to develop the facts.

Mr. BABSON. I feel very strongly that the question of the prices of materials—even if the prices of material went down and the cost of labor went down—that would not solve the problem, if that is the point.

Mr. WARREN. You mean, applied to the Boston Elevated, for instance?

Mr. BABSON. The companies that I know about, the Boston Elevated and the Bay State and other companies that the Babson system

of organization have studied and put out reports on. I feel that the war, you might say, was the straw which broke the camel's back, but that it simply hastened the period, and that even now, if the prices of material went back considerably, and even if wages went back, which I seriously doubt, we would still have the problem on our hands.

The CHAIRMAN. Did you hear Secretary Baker's testimony here this morning?

Mr. BABSON. No, I did not, I am sorry to say.

The CHAIRMAN. I think the evidence shows that in Cleveland, under a cost-of-service plan, they have raised the fare from 3 cents to 5 cents, and they have maintained their operating expenses and fixed charges, and they have increased the wages of labor, and that in all respects the company has maintained good service. If that is the result of the cost-of-service plan, why isn't it a good system?

Mr. BABSON. Why, where that is the result, it is a good system. There is no question about that.

The CHAIRMAN. Why should it not be the result generally?

Mr. BABSON. I don't know. I hope it will be.

The CHAIRMAN. You say in Boston you have got it, but it is a failure?

Mr. WARREN. May I inject a question there, Mr. Chairman? Because I think Mr. Babson is talking about a different kind of cost of service from the testimony that has come here from Cleveland.

In the Boston Elevated cost of service, Mr. Babson, the scheme involves a guaranty, does it not, of the cost of service?

Mr. BABSON. Yes.

Mr. WARREN. And if that cost of service is not realized by the rates charged, the deficit is assessed upon the communities served, and they pay it in cash?

Mr. BABSON. Yes. It is assessed on all the property in the city.

Mr. WARREN. And it is that fact, I imagine, that influences your judgment, as producing this lethargy on the part of the managers and employees?

Mr. BABSON. Yes.

Mr. WARREN. They feel that their interest in the cost of service is going to come anyway?

Mr. BABSON. Whatever deficit there is is paid by the State treasurer and assessed upon the communities served.

Mr. WARREN. Yes. In Cleveland, as I understand the situation there, the only guaranty is that the company may charge up to a certain limit a sufficient fare to meet that cost of service; but it has to get it out of the operation of the property?

Mr. BABSON. That is more in line with what I have suggested. That is all right.

Mr. WARREN. I felt that you were talking about different phases of cost of service.

Mr. BABSON. Yes.

The CHAIRMAN. You have been using the words "cost of service" there in a certain general way, and I supposed that we thoroughly understood what the Cleveland plan was.

Mr. WARREN. We call it cost of service. This Boston plan, in Massachusetts, is called "service at cost"; but it is a very different proposition.

The CHAIRMAN. Of course.

Commissioner MEEKER. It is rather a guaranteed income?

Mr. WARREN. It is a guaranteed income. The theory is that the rates are going to take care of it. Thus far they have not, and nobody cares whether they do.

Mr. BABSON. The Cleveland plan is all right. That is practically what I have in mind—letting the company charge what is needed to bear the traffic. That is what we call the New Brunswick plan.

Mr. WARREN. That Prof. Ritchie put in down there?

Mr. BABSON. Yes.

Mr. WARREN. Except that had an element of an inducement to the managers?

Mr. BABSON. Yes; when they lower the fare they get increased dividends, and when they increased the fare they get a reduction of dividends.

Mr. WARREN. That is what Secretary Baker spoke of this morning.

Mr. BABSON. I think of all the different systems that is the ideal system.

Mr. WARREN. That New Brunswick system?

Mr. BABSON. Yes. The Governor General of Canada appointed a commission, of which Mr. Guy W. Currier, of Boston, was chairman—and you ought to have him here to talk before you if he has not been here. I think that was the most scientific plan that I have ever seen in print at all. That was a plan like the Cleveland plan, except that there was an additional inducement to the stockholders there.

Mr. WARREN. The rate on the stock increases as the fare rate goes down?

Mr. BABSON. Yes; a similar plan is adopted in connection with the gas companies in Boston. We can increase the dividends only as we reduce the price of gas.

The CHAIRMAN. How long has that been in effect in Boston?

Mr. BABSON. Twelve or fifteen years.

The CHAIRMAN. What is the effect of it?

Mr. BABSON. The effect of it is that everybody is right on his toes, and we have a very efficient organization there. We have the best gas engineers in the country and we have very low-priced gas. I think it has been successful.

Mr. WARREN. Judge Anderson, who was one of the Interstate Commerce Commissioners for a short time, was very much interested in the introduction of that at the time Mr. Babson mentioned.

Mr. BABSON. And Mr. Brandeis.

Mr. WARREN. Yes; both were very keenly interested in that.

The CHAIRMAN. Is this commission to understand, then, that, in your opinion, the cost-of-service plan, such as they have in Cleveland or New Brunswick or in Boston—

Mr. BABSON. Not in Boston.

The CHAIRMAN. The gas?

Mr. BABSON. In Boston, on the gas, yes.

The CHAIRMAN. Would be ample protection to the public and to capital and labor?

Mr. BABSON. Yes; as an experiment, as the next step to try.

The CHAIRMAN. Do you think such a plan would be the best solution that could be found under the present conditions?

Mr. BABSON. Yes.

Commissioner SWEET. I am somewhat interested in what you have said about street railway and jitney competition. Do you mean that as a general proposition throughout the country or do you think it would only apply in certain particular localities?

Mr. BABSON. I do not believe in letting Tom, Dick and Harry run these Ford cars around. I believe that jitney service should be regulated, and that it should be done decently and properly, and in a responsible way and by responsible people. On the other hand, I feel that the attempt which some street-railway companies show in trying to throttle jitneys is exercised from the same spirit that the old stagecoach owners showed when they tried to throttle the steam roads, and that the steam roads showed when they tried to throttle the street-cars. We went through the same thing in fighting the steam-railroad companies, in trying to get our franchises and in trying to build our roads. They thought that they were going to be ruined, and they fought us at every turn. They would be better off to-day, and we would have been better off to-day, if we had both sat around the table and said: "Now, here; there is a certain amount of this traffic that you can handle the best, and we will keep out if it; and there is a certain amount of the traffic that we can handle the best, and you can keep out of that." And if the thing had been built up in a cooperative way, our street-railway securities would be better off, and our steam-railroad securities would be better off.

Now, I believe that the street-car people are up against the same problem with the jitneys. I think there are certain things that the jitneys or buses—I am referring to buses very largely—I think there are a large number of communities, and a large number of routes, especially interurban routes, where the bus or the jitney can perform better service than the street-car.

Commissioner SWEET. Take the ordinary street-railway systems of the various cities of the United States. Do you think that it is necessary to demonstrate their right to live by a cat-and-dog fight with jitneys, in the way you have spoken about?

Mr. BABSON. I should not call it a cat-and-dog fight.

Commissioner SWEET. Is it not, in most cases, demonstrable sitting around a table, without ever going through any contest at all, that in certain places and for certain purposes the street railroad is far better than the jitney?

Mr. BABSON. Yes; absolutely.

Commissioner SWEET. And for those places you do not need any demonstration of it?

Mr. BABSON. Absolutely.

Commissioner SWEET. And there are certain other places like, for instance, the feeders, we will say, extending out into the rural districts a certain distance, where a street railroad—you can tell sitting around this table—will not pay for years, at least?

Mr. BABSON. Yes.

Commissioner SWEET. If such a case as that were being considered, then it would be your judgment that it would be better not to have a street railroad, and to either let the street-railroad company or the others who are willing to do it perform that service of bringing people there to that point on the street railroad from which it will pay?

Mr. BABSON. Yes.

Commissioner SWEET. Is that your idea?

Mr. BABSON. Yes; but let me make this clear: The method that I would pursue in determining that would be this: I would ask a body of men like yourselves to assume that no street railway existed on that street, and the question was put to you, "Shall we build a street railway or operate a bus line?" And if you would answer the question from that point of view, I should be perfectly content to take your decision.

Commissioner SWEET. I suppose the Fifth Avenue bus lines are regulated by the public-service commission in some way, and are compelled to run regularly; are they not?

Mr. BABSON. Yes; and I believe any jitney service should be.

Commissioner SWEET. Is that true ordinarily with the jitney throughout the country, where it has sprung up in opposition to the street railway?

Mr. BABSON. Not in the early stages.

Commissioner SWEET. Is it now?

Mr. BABSON. It is becoming that way. It should be that way absolutely.

Commissioner SWEET. They are compelled to make regular trips, are they?

Mr. BABSON. Let me get back to my point. It seems to me that if I were a public-utility commissioner, or if I were a railroad commissioner, I should devote my energies to service rather than to price. It is the service the people want.

Commissioner SWEET. Would you impose the same obligations as to regularity and charges and everything else on jitney service that you would on street-railroad service? I do not mean, necessarily, having the same amount of fares, or anything of that kind; but would you be just as careful to have them under the control of the public as you would the street railroad?

Mr. BABSON. Absolutely.

Commissioner SWEET. You would want to have just as much guar- has been done in many cases, to build up an overnight opposition and competition, and then, as soon as they had made it very unpleasant for the street railroad, to pull out and leave the public without any service?

Mr. BABSON. No; I seriously oppose that. I think the jitney service should be under the same regulations as the street-railway service.

Commissioner SWEET. You would want to have just as much guar- anty of continued service as with the street railroad?

Mr. BABSON. Yes.

Commissioner SWEET. The public is entitled to that?

Mr. BABSON. Yes. I sympathize with the public-service commis- sion in their demand for service, and it seems to me that there is the great field at the present time for work—to demand service; but we are all discussing price, and we forget all about service. I think there are a lot of street-railroad companies that, if they would only wake up and give good service, would save themselves.

Commissioner SWEET. Of course you understand, Mr. Babson, that owing to the automobile opposition or competition—I am speaking

now of the automobiles that are privately owned particularly—and added to that the high cost of materials and the higher wages paid, they all combine, do they not, to make it mighty hard for the street-railroad company to live at the present time?

Mr. BABSON. Yes, sir.

Commissioner SWEET. Now then their incomes have not been advanced in proportion to their outgo; that is the fact?

Mr. BABSON. No, sir.

Commissioner SWEET. And some way or other a way must be found if they are to live at all to approximately equalize the income to the outgo; is not that so?

Mr. BABSON. Yes.

Commissioner SWEET. You have to find a way?

Mr. BABSON. Yes.

Commissioner SWEET. Now then, you say give better service. Well, how can they under the present conditions give very good service?

Mr. BABSON. My first point is to remove the restrictions and give them an opportunity to breathe.

Commissioner SWEET. I understand that would take off the taxes?

Mr. BABSON. Yes; and let them stand on their own bottom. Those that survive from a service point of view, they will survive, and those that can not shall go by the wayside; and I believe that it is ultimately going to happen that way, anyway, and that such plans as we are having in Boston are simply delaying the evil day.

Commissioner SWEET. So if I understand you right, you would relieve them of the burden of paving between their tracks and a little outside; you would relieve them of taxation upon their franchises and upon their physical property; you would treat them as public utilities in the sense that they are needed by the public in order to do the work of the public; and you would give them every chance to prove their right to live?

Mr. BABSON. Yes.

Commissioner SWEET. And if they could not prove it, you would let them go?

Mr. BABSON. I would let them go; yes, sir.

Commissioner SWEET. And as every other service ought to go, if it can not prove its right to exist under such circumstances as that?

Mr. BABSON. Yes.

Commissioner SWEET. But at the present time the street railroads of the country are suffering and laboring under all these burdens, are they not?

Mr. BABSON. They certainly are.

Commissioner SWEET. And they can not live under them, can they?

Mr. BABSON. No; they can not; and it is a crime to the communities to keep them in such a position.

Commissioner SWEET. And your idea is that the burdens must be removed, and they must be given a freer hand in regard to fares, and that sort of thing, so that they can get a fair return for the service they render, and then let them depend upon their good service to bring custom and trade to them, and business, and in that way be able to take care of their expenses—operating expenses, and a fair return upon the investment; that is your idea?

Mr. BABSON. Those are my sentiments, exactly.

Commissioner GADSDEN. I wish you would give us some information along the lines from an investment standpoint of the shrinkage in values of street-railway securities. You have made a study of that problem, have you not? Just leave the question of fares and rates out of it and let us discuss for a moment what the effect on the investment feature has been.

Mr. BABSON. Taking all the street-railway bond issues of the country, the shrinkage has been about 25 per cent, and considering all stock issues of the country, the shrinkage has been about 75 per cent.

Commissioner GADSDEN. Can you approximate what that means in dollars and cents?

Mr. BABSON. It amounts to over a billion dollars; it amounts to over a billion dollars and, of course, a great deal of these securities are held by the banks and trust companies and insurance companies and the mass of the people.

Commissioner GADSDEN. Is it not a fact that up to five or six years ago street railway securities were considered rather a favorite security in the market?

Mr. BABSON. Well, the savings-bank investment laws of Massachusetts are generally considered as the strictest of any State in the country; that is to say, judges all over the country when it comes to guardianship questions will state that the money may be invested in anything legal for Massachusetts savings banks, as they are the most strict of any of the laws. Now, the State of Massachusetts made street railways legal for Massachusetts savings banks some 10 years ago.

Mr. WARREN. Massachusetts street-railway securities?

Mr. BABSON. Yes; Massachusetts street-railway securities. And I was looking over the accounts of a bank the other day in Massachusetts, a savings bank where they had bought the first-mortgage bonds of the Warren, Brookfield & Spencer Street Railway Co., bonded for only \$8,000 a mile, legal for Massachusetts savings banks, and where there was an absolutely total loss. The stockholders not only lost all they put in, but those bondholders lost all they put in; and when the tracks were ripped up a few months ago and sold for junk, there was only enough to pay the lawyers and receivers' certificates. So I feel very strongly on that point.

Commissioner SWEET. Do you know whether any of the holders of the stock who lost money were widows and minors and that class of people, poor people comparatively?

Mr. BABSON. I should not say that the holders of the stock were so much—

Commissioner SWEET. Well, the bonds, perhaps.

Mr. BABSON. As the bonds and notes. But in the Massachusetts Electric, it had 3,000 stockholders when it went busted, and that was a \$25,000,000 corporation, two or three years ago; and I made a list of those stockholders, and the directors of the company held less than 5 per cent of the stock and 95 per cent of it was held by pure investors, while over 50 per cent of it was held by trustees, guardians, and banks. Over 50 per cent of it; and that has all gone by the board.

Commissioner GADSDEN. Do you think that fairly reflects the general situation of the railway securities in this country?

Mr. BABSON. Yes, I think it does; but the first figures I gave you, about 25 per cent shrinkage in bonds and 75 per cent shrinkage in stock, apply to the country as a whole.

Commissioner GADSDEN. A total loss of about a billion dollars?

Mr. BABSON. Yes.

Commissioner GADSDEN. In what period?

Mr. BABSON. Within the last 10 years, since it has reached its apex.

Mr. WARREN. Could you not almost say within the last five years?

Mr. BABSON. I should say three-fourths of it; yes, in the last five years.

Mr. WARREN. Practically, since the European War began? It began about that same time, 1914?

Mr. BABSON. Yes.

Mr. WARREN. Mr. Babson, as I get your view of the situation, it is either that the restrictions on the street railways should be removed or corresponding restrictions should be imposed upon the jitneys, including the motor buses; and then they should be left to see which one will survive in cases where both are not needed. Is that right?

Mr. BABSON. Well, I would rather remove these artificial restrictions on the street railways first.

Mr. WARREN. By that, you mean the taxes and burdens?

Mr. BABSON. Yes; I would not put paving taxes, for instance, on the jitneys.

Mr. WARREN. I was not referring to that so much as I was to what is called regulation. I suppose nearly everybody would agree that those burdens which have no relation to the service and which are not necessary to performing the service and amount only to a tax on the car rider ought to be removed anyway. If income is needed by the community it ought to be acquired through some proper method of taxation and not by an indirect tax on the car rider. But aside from that, there is a great deal of regulation of street railways that does not apply to jitneys in most places. For example, the street railways are expected to operate in a snow-storm as well as in fair weather; it is expected that they will begin very early in the morning and operate until midnight and, in some places, all night. Would you remove such requirements as that?

Mr. BABSON. I should make them equal; yes, sir.

Mr. WARREN. Make them equal?

Mr. BABSON. Yes, sir.

Mr. WARREN. And then let them see who could best serve the public?

Mr. BABSON. I feel very strongly that we should insist on regulations for service, and we should hold up the standard of service on all forms of public utilities; and I feel that the great work of public-utility commissions is to see that the public has proper service and to see that the jitneys and the street-cars are under the same rules as to service.

Mr. WARREN. So that practically, I infer that rather than remove these service regulations from the street railways, you would

leave them in, but you would impose corresponding requirements on the jitneys?

Mr. BABSON. So far as they refer to service; yes.

Mr. WARREN. If they were going to undertake to serve in a certain street in competition with the street railway they should meet the same hours and same service conditions?

Mr. BABSON. Yes, sir.

Mr. WARREN. And if the fare was going to be regulated on the street railway, then the fare on the jitney should be; but your judgment, I take it, would be that, as regarding the fare, if they were in competition you would let them regulate that themselves?

Mr. BABSON. Yes; I would let that regulate itself.

Mr. WARREN. And the same, I presume, as regards liability for accident. I do not know whether you have noticed—but I happened to be in Williamstown over Sunday, and in reading The Republican I saw that a jitney in Holyoke, where they had just been considering a regulation of jitneys, had been upset with six or seven children in it—one or two had been killed, and the rest were all taken to the hospital. Now, if that had happened to a street-car in Massachusetts, it would have amounted to anywhere from twenty to fifty or sixty thousand dollars damages, would it not, as our juries operate?

Mr. BABSON. Including lawyers' fees.

Mr. WARREN. Well, I think with that it would be still more, but it would have been a very substantial amount. How would you meet that?

Mr. BABSON. I think the same thing should apply; yes, I should think the same thing should apply.

Mr. WARREN. Most of the jitneys which are at present operating in Massachusetts are individual operators, and the only way it could be reached would be by requiring some sort of a bond?

Mr. BABSON. When I speak of jitneys, I have more in mind than the bus system.

Mr. WARREN. And there you would expect a corporation, with some responsibility of operation?

Mr. BABSON. Yes.

Mr. WARREN. Assuming that that is the proper method with the jitneys or motor bus, the prospective motor-bus competition and the actual competition, where it exists as it does in the Bay State territory, should be regulated in the same way as the street railways? It is not under the Massachusetts law to-day so regulated, is it?

Mr. BABSON. No, sir.

Mr. WARREN. And I think that is true in a great many States, from what I have heard from street-railway people here. So that to bring about that situation which you recommend involves the necessity of further legislation?

Mr. BABSON. Yes, sir.

Mr. WARREN. What would you recommend, if anything, for the present exigency of the street railways? It has appeared here that something over 6,000 miles of street railways are in receivers' hands to-day, and that many more are really failing or are with difficulty earning their operating expenses. This necessity for legislation would take one or two years, would it not, according to whether the legislature meets every year or every other year?

Mr. BABSON. I should remove the burdens first.

Mr. WARREN. That requires legislation too, in many cases, does it not?

Mr. BABSON. Why, yes; it does.

Mr. WARREN. It does in Massachusetts, and it does in many States.

Mr. BABSON. Then my second step would be to open wide the fare question.

Mr. WARREN. Immediately?

Mr. BABSON. Yes; immediately.

Mr. WARREN. So that the companies could charge enough to keep their heads above water?

Mr. BABSON. Yes.

Mr. WARREN. Pending the effective date of some more permanent and better thought-out arrangement?

Mr. BABSON. Yes; and the only thing—

The CHAIRMAN. That, also, requires legislation in many commonwealths?

Mr. BABSON. Yes.

Mr. WARREN. It does in some places; but in most places—I judge from what I have heard here; I am only familiar especially with Massachusetts conditions—in many jurisdictions, either with the commission, the supervising State commission, or the municipal government can remove the fare limitations if they see fit, I think. That is what has been done in England, if I understood Mr. Stanley's testimony. They had an upset limit to the fare. And so Mr. Secretary Baker testified this morning. That was first temporarily removed so as to put into effect the 5-cent fare with 1 cent for transfers, which is now the prevailing fare there. That is 1 cent more than the maximum limit fixed in the Taylor franchise. So that, I think, if a recommendation of that sort seemed wise to be made, and if the people who had the power saw fit to adopt it, in almost every case it would be possible to furnish the sort of relief that Mr. Babson has mentioned.

Mr. BABSON. I believe that it would.

Mr. WARREN. And you think that it is essential?

Mr. BABSON. Yes; I think it is essential.

Mr. WARREN. To tide over this situation?

Mr. BABSON. Yes.

Commissioner SWEET. Although you mention that as your second step, inasmuch as that can be taken immediately and the relief from these various taxation burdens could not be, you would take your second step first then, I take it; that is, to permit the raising of fares while the other thing was being done. Is that right?

Mr. BABSON. Yes. I put it as the second step, because I feel, if I am doing an injustice to a man and owe a man money, I had better square up with him and treat him right before I give him charity.

Commissioner SWEET. I understand, in other words, you make it the second step in importance, but not in time?

Mr. BABSON. Yes.

Mr. WARREN. When you have a man *in extremis* you have to give him whatever medicine is at hand.

Mr. BABSON. Yes. In that way I put the first step, the increasing of fares and the second step the relieving of the unnecessary.

burdens; but I am opposed to letting down on service, and that seems to me is what is happening right now with the street railways—that they are not giving service, and the rolling stock is dilapidated and they are pulling off the cars. And in every other kind of business when we feel things are going against us we realize that our only salvation is to make a plunge and give better service than the other fellow. We do not retard our service. And I feel that that spirit which I find among common street-railway people and among some municipalities and among some banking interests, of retarding the service, cutting it down and simply passing the buck on to the community is going to have a backfire which will ultimately be bad for the street-railway security holders and the community and everybody else.

Commissioner SWEET. Don't you think that, although a man might know that it will be a good thing to paint his house and that it would last longer and look better, if he did not have the money to paint it with, he might postpone the painting job?

Mr. BABSON. Yes; but I do not think that the community should forbid him to get the money.

Commissioner SWEET. No; certainly not.

Mr. BABSON. No. That is what they are doing with the street-car people.

Mr. WARREN. It comes back to the first step again; let the companies first increase their fares and then direct their attention at once to improving the service. That would be your prescription; would it not?

Mr. BABSON. Yes; and I think the commission should hold them up on that service, I think the commission should hold them up.

Mr. WARREN. If they can get the additional revenue.

Mr. BABSON. If I was the Public Service Commission of Massachusetts, for instance, I would say to those companies in Massachusetts, "You can charge whatever fares you want to, but I am determined that Massachusetts shall have the best street car-system in the country." And I believe that on that platform the people would be happier and the communities would be better off and the security holders would be in a safer position.

Mr. WARREN. But under the present financial condition of those very companies the commission can not effectively say to them, "You must make your service good."

Mr. BABSON. No.

Mr. WARREN. And the companies could not make it good if they wanted to.

Mr. BABSON. No; absolutely.

Mr. WARREN. Until the first step, namely, the right to charge more fares, was taken care of?

Mr. BABSON. Yes.

Mr. WARREN. So that it is really a financial impossibility for them to-day; is it not?

Mr. BABSON. Yes; but on the other hand, I think there are some street-railway people who feel that it is just a question of charging more fares. That is not the solution of the problem. For instance, just before I came here I went around to the Bay State office and went through the receipts during the past 30 days, and we are not

making any more money on the 10-cent fare than we did on the 7 or 8-cent fare. We have reached the point of saturation.

Mr. WARREN. When you said you thought it was either a 5 or a 10-cent fare you meant as a unit of collections, I judge.

Mr. BABSON. Yes.

Mr. WARREN. You do not mean necessarily that the 5-cent fare should be the old 5-cent fare covering the same service and territory?

Mr. BABSON. No.

Mr. WARREN. But that the ride should be adjusted to what a 5-cent fare ought to give?

Mr. BABSON. Yes.

Mr. WARREN. And shorten the distance?

Mr. BABSON. Yes. For instance, on our Boston Street Railway it is 10 cents; that is the minimum. Well, now, I think it is very questionable whether the road would not make more money if they had a 5-cent zone. On the other hand, I realize the objection to the 5-cent zone. It would tend for congestion in Boston, which should be avoided. We should really—Boston is better off, physically and spiritually and socially, to have the people move out from the center rather than congest them in the center. So that as a social proposition I am opposed to the zone system, but as a money-making proposition for the companies I think the companies would perhaps make more money with the zone system. But I feel strongly about that along other lines. For instance, you are acquainted in Boston?

Mr. WARREN. Yes.

Mr. BABSON. If you and I owned the street-railway system in Boston the same as we would have a coal business there or a dry-goods store and could do just as we wanted to, we could charge 25 cents to come in from Brookline into the subway and we could get it, because we could get people in there quicker for 25 cents than any other possible means of conveyance. On the other hand, there are other lines where we would charge only 5 cents. That would not be on the basis of mileage; it would not be on the basis of zones, as such; it would be on the basis of service and speed. And that is where I think the thing is going to work out.

I think that the subways and the elevateds are going to be the salvation of the city properties, and the bunkers are going to be the salvation of the interurban property, and the old-fashioned street railway that we are all trying to save is really pretty much in the stagecoach class.

Mr. WARREN. The former stagecoach class, and still the old horse railroad, as a matter of fact, did eliminate the old stagecoach, did it not?

Mr. BABSON. The old—

Mr. WARREN. The old horse buses. I am afraid you are not as old as I am, so you may not remember them; but the old horse buses which used to run into Boston from Cambridge and Brookline, and other surrounding suburbs, were all eliminated by the introduction not of the electric railroad, but of the horse railroad.

Mr. BABSON. Yes.

Mr. WARREN. So that there was something about the vehicle that was drawn over the rails that was more comfortable and appealed more strongly to the public than the bus which was drawn over the pavement.

Mr. BABSON. On the other hand, if the auto bus had come before the street railway was built, do you think it would have been built in a good many of those instances? Take down to Lexington and Concord and Salem?

Mr. WARREN. No, no; I think in some of those territories the street railway perhaps ought never to have been built anyway.

Mr. BABSON. Yes.

Mr. WARREN. The traffic was too sparse, the population was too limited. I am very much obliged. That is all.

Mr. BABSON. I thank you for bringing out that point about the Boston situation, distinguishing it from the Cleveland situation. I am thoroughly in favor of the Cleveland plan. The Brunswick plan is my first choice.

Mr. WARREN. Which is the Cleveland plan with a graduated scale.

Mr. BABSON. With a sliding scale, so as to induce efficiency on the part of the management. And my second choice is the Cleveland plan. But I feel that the Boston plan is the poorest of all, because it is neither municipal ownership nor private ownership nor public regulation; it is everybody's business and nobody's business, and sooner or later there is going to be a backfire from it.

(Witness excused.)

The CHAIRMAN. Mr. Ogburn, who is your next witness?

Mr. OGBURN. Mr. John P. Fox.

STATEMENT OF MR. JOHN P. FOX.

The CHAIRMAN. State your name.

Mr. FOX. John P. Fox, 55 West Forty-fourth Street, New York City.

The CHAIRMAN. Whom do you represent, Mr. Fox?

Mr. FOX. I appear here as an independent student, but at the same time I am with the city of Reading as transit expert in their rate case with the Reading Transit & Light Co., which we have been on for a year and a half. We are in the midst of the valuation now, and I am representing the city in all these matters.

I am also secretary of the Public Service Club of the city of New York. We are quite active in the New York situation, although I am not authorized to appear for them. But my excuse for appearing here is an experience of about 20 years, particularly along the lines of trying to help companies to increase their business and to cut their expenses.

The work began about 20 years ago in Boston; and I have given a great deal of time to this subject without any idea of recompense, from interest, trying to help the companies to solve some of these problems of making a living, also giving good service. I have worked for a number of cities. I was with the city of New York four years, under the Mitchel administration, as expert to the board of estimate. I was with the city of Pittsburgh two years, and besides being with the city of Reading, I have other cities and towns, such as Springfield, Mass., in the recent rate case there. I have also spent considerable time in Europe during the last 25 years in trying to exchange experience, and particularly in trying to find what we could learn

from Europe in the way of fares and methods of increasing business and economizing at the same time.

I went to Europe in 1903 for the Boston Elevated Co. to report on elevated construction and surface operation. I took one of the Stone & Webster men in 1905 to show him the European methods of economizing—particularly the one-man car, for example—and that was more as a friend of Stone & Webster than anything else. In 1907 I went over again for the fourth time and I made a report on certain subjects for the New York Rapid Transit Commission.

My work has been more along public lines than working for the companies, because I got pretty well discouraged in trying to get the companies introduce new methods, either of increasing their income or of economizing.

I think one of our great troubles has been that our companies have been perhaps too prosperous. We have not felt the pinch of necessity as they have in other countries, and as the result we have not been as economical as we should have been, and have not had to hustle for business, and that is perhaps the reason why the United States is worse off to-day than the street-car systems in other countries as a whole. While they have raised the fares in other countries, you will find as a whole that the street railways in other countries are better off than we are. For example, taking the 10 largest companies in England—their receipts increased about 40 per cent last year over the years before; the companies of South America and Africa and Australia, all of them, have had very large increases, while on the Continent of Europe they have had simply fabulous increases.

Commissioner SWEET. You speak now of gross receipts?

Mr. Fox. Yes; gross earnings. The figures have just come through from the Berlin company, the largest in Europe, where with a traffic last year of something over 600,000,000 people there is an increase of 64 per cent in the gross earnings and 75 per cent in their net earnings, a most unheard-of result. I can not imagine how they have done it. They increased their fare from 2½ cents to 4 cents, but how that unexampled prosperity came to that company I do not know, and I am quite curious to find out.

Commissioner GADSDEN. They must have changed the system of bookkeeping.

Mr. Fox. They paid a 7½ per cent dividend.

Commissioner GADSDEN. Or perhaps used the suspense account.

Mr. Fox. I know the Berlin company very well, and I hope to get over sometime to find the secret of that extraordinary showing.

But, seriously, why is this difference among these companies? I suspect if you look at it fairly in the face you will find that the companies in other countries have not had the fixed charges that we have here, and that is one great difference. And again the New England companies are really in a way different from the companies in the other points of the country, especially in Massachusetts, where they have had very strict regulations. That, I think, is the reason why the New England companies are so badly off to-day, because they have not been highly capitalized. Up to the present time they have had a fairly prosperous time, as a whole, and when the pinch of the war came they did not know how to economize. Now, in the other parts of the country where the companies had excessive charges to

pay, they knew how to operate economically, but did not know how to cut down their fixed charges.

Take, for example, two companies I have been concerned with in rate cases, the Springfield Railway Co. and the Reading Transit & Light Co.: The Springfield company in 1917 had an operating ratio of 93 per cent. The Reading company that same year had an operating ratio of 69 per cent only. Now, Springfield's fixed charges and dividends and everything, after taking out operating expenses, amounted to 25 per cent of their gross, whereas in Reading the fixed charges were 54 per cent of the gross. The result was the Reading company, you see, ran over about 13 per cent over their income. The Springfield company had a very bad deficit for the same reason the same year. Now, if you could exchange those companies and would give the Springfield company the Reading methods of operation and give the Reading company the Springfield company's fixed charges, you will at once strike a balance which would put both of them on their feet. If the Reading company had only 25 per cent fixed charges instead of 54 per cent, and 69 per cent operating ratio, they would be in clover. And the Springfield company the same way—if they had Reading operating ratio of 69 per cent they would have no trouble either.

Now, the question is, how can you get these two kinds of companies to cut down their expenses? I worked very hard with the companies in both places to try to show them the way. At the same time that I have been on the public side of the matter, I tried in every way to help them out of their difficulties. The Reading company really has not got the courage to reorganize; and you can not blame them, in a way, because they are one of the companies who have no equity in the property; that is, they are not the owners. They hold the property, but they hold it on a lease, and the underlying securities are still in the hands of the original investors. Now, if they were to go into bankruptcy, naturally they are afraid they would lose all the money they have put into that property, which would be a very serious item.

Mr. WARREN. That is the Reading company you are speaking of?

Mr. Fox. Yes; the Reading company. Now, the difficulty in Springfield is not—

Commissioner GADSDEN. Is the Reading company earning anything over its operating expenses to-day?

Mr. Fox. No; it is running away behind. It is supported by the income from the electric-lighting end.

Commissioner GADSDEN. How then would it be helped by reorganizing its capital?

Mr. Fox. By reducing that 54 per cent fixed charges.

Mr. GADSDEN. But you say it is not earning its fixed charges?

Mr. Fox. If it would reduce the capitalization to the amount the Springfield company has reduced it, it would, say, have 25 per cent to pay them.

Commissioner GADSDEN. Is it earning that to-day?

Mr. Fox. Oh, yes; its operating ratio is sufficient so that it could carry it if it could reduce its fixed charges to a moderate sum.

Mr. WARREN. What is its operating ratio?

Mr. Fox. In 1917 it was 69, and at the same time it is somewhat higher for Springfield. I was comparing the same year.

Commissioner GADSDEN. When was this date you gave for the Springfield company?

Mr. Fox. 1917, also.

Commissioner GADSDEN. Both 1917?

Mr. Fox. Both 1917.

Mr. WARREN. You said that was 93 per cent?

Mr. Fox. The Springfield ratio was 93 per cent in 1917. The difficulty in Springfield was not altogether capitalization, because the company is capitalized for less than its actual cost, but there the trouble is to economize in operation. And there the company finds itself up against this problem of meeting the war costs, and it did not know how to reduce its operating charges. The men are working faithfully in Springfield and are on to the business, but they simply did not know how to do it, and to change their methods all at once, as you know, is very difficult.

I tried one thing to help those companies out in Springfield and Reading. I tried to get the Massachusetts company to take one of the Reading men. The Massachusetts company had an enormous amount of work to be done. This Reading man was one of the best in the country in his line, and I urged the Massachusetts company to take him on, and they very nearly did it; they wanted to come up and undertake a rehabilitation on an enormous scale, but at the last minute they could not get the money. I am confident if the Reading engineer could have gone to Massachusetts, he could have shown that company how to get on their feet, because he has maintained his road in the best possible condition with all appreciations and everything for 17 per cent of the gross earnings, and he has done it in a wonderful way. The maintenance and depreciation in Massachusetts runs far above that figure, as you know. And my opinion is that these two kinds of companies, the overcapitalized and the undercapitalized, had better exchange experience. The overcapitalized companies will find some way to cut down their charges and the companies who have had an easy time on account of their charges must find some way to economize in operation or to increase their earnings.

The CHAIRMAN. According to that, the trouble with that company is largely one of management rather than capacity to earn?

Mr. Fox. Which company do you mean?

The CHAIRMAN. You say by exchanging managements you would improve conditions?

Mr. Fox. Well, if they would do it I think we would see some very interesting results. Now, I tried every way to get the Reading company to employ a man who has perhaps done the most work in Massachusetts to help the Massachusetts company, to go down there with his Massachusetts experience and help them to reorganize, and he has been down there two or three times, and the company unfortunately thinks I am trying to get him a job instead of trying to help them, and on that account, looking at it from the wrong perspective, they have not employed him.

Mr. WARREN. Do you mind saying who that is? You say a Massachusetts man.

Mr. Fox. Well, no; I——

Mr. WARREN. I will not press the question, but I wondered whether you did object, that is all.

The CHAIRMAN. The witness is free to answer or refuse to answer questions. He is not sworn.

Mr. Fox. I hesitate a little to quote some people who are earning a living. I might mention his name and somebody might get a little prejudiced against him. Because I am not earning a living and so I do not mind so much; but that is the only reason.

Mr. WARREN. I thought I might like to recommend to the Springfield officers employing him; that is all.

Mr. Fox. Well, they know him very well, Mr. Warren.

Commissioner GADSDEN. Instead of these general statements as to the difference in the efficiency of these two plants, can you give us some figures as to the cost of operation per car-mile or something like that in Springfield and Reading so we can follow you a little more intelligently? Can you tell us what is the production cost in Reading, for example, or the transportation cost, and then some of us could put our finger on where the trouble is, perhaps.

Mr. Fox. I have not those tables made up here, I am afraid. I will see—

Commissioner GADSDEN. It might be, for instance, that the difference is in production cost. Reading might get some pretty cheap coal. I do not know. I was wondering what would account for it.

Mr. Fox. The Reading power is the highest in the country. They make their own power but they charge themselves a very high price for it. It is costing them 17 mills. What does Springfield pay now? They were paying about 11 when I was there, I think.

Mr. WARREN. They are buying it now, but at the time you refer to they were making their own power at a very much higher price than that. They had no storage facilities and were paying \$8, \$9, \$10, and \$11 a ton for coal.

Mr. Fox. I will be very glad, Mr. Gadsden, to furnish you with some of those figures.

Commissioner GADSDEN. I thought perhaps you had them, because it would throw some light on what seems to be a very remarkable difference in the operating costs. Don't let me stop you. Go right ahead with your statement, Mr. Fox.

Mr. Fox. This problem of reorganization is a very difficult one. Our feeling in New York City is that the New York companies have got to reorganize before they will get anywhere. My committee urged the public-service commission and the heads of the different companies to get together and form one company for New York City, for example, as Mr. Nixon has already suggested. Here you have subways and surface lines and elevateds, the New York lines competing with each other, and the subway lines naturally are getting more of the traffic. You have one company, the subway, competing with its own surface lines; and how can that go on forever without the surface lines losing?

What are you going to do in a case of that kind? Those surface lines in New York City are urgently needed as feeders for the rapid-transit lines. The Interborough Co. could take the passengers off the surface lines, and if those surface cars were put out as feeders they would increase their traffic on the subways and they would save money on the surface lines, but they have those franchises which they do not want to lose. They do not want the reorganization, in other words, they are afraid to take the undertaking and to

possibly run the risk of being upset in court, and yet without something of that sort how is New York going to make those surface lines pay which are losing money day after day?

One trouble, of course, in this reorganization matter is that the companies are afraid they will lose their investment, but I do not believe the courts, in case of receivership, are going to permit the underlying companies to take back these properties and take back all the money that has been put into them. In other words, if the Reading Transit & Light Co. went into court to-day and asked for a receiver, would the United States courts give that company, the original holders of the securities, all that the Reading Transit & Light Co. has put into that property to-day? I do not believe they would for a moment.

Now, Mr. Fagan told you the other day that in Pittsburgh if they are broken up there, the system would have to be broken up into a constituent part. I do not believe the courts in Pittsburgh would do that any more than they would in New York City. Now, Judge Mayer in New York, as you probably know, determined against breaking up the New York railway system. He did discontinue the Eighth Avenue line, but he decided it was against public policy to break the company up into its constituent companies, and as the result the New York Railways Co., which has electrified all these horse-car lines, is not going to see all their investment thrown away and turned back to the original company, but will hold them. Moreover, I do not think the courts would sanction the breaking up of these companies on account of the public, either. The operating system, as a whole, is too vital to the public to permit any such breaking up. So that if these companies will only face the question of reorganization as they have been urged to, many of them, again and again, to cut down their fixed charges, there you are going at once to make away with a great deal of their trouble.

The CHAIRMAN. How much saving in fixed charges would be made by this consolidation?

Mr. Fox. There in Reading they ought to cut their fixed charges right in half; say they are 50 per cent now, they certainly ought to be cut down to 25.

The CHAIRMAN. How much in New York would they save?

Mr. Fox. In New York I do not know.

Commissioner GADSDEN. Are you speaking of legitimate investment, or just what do you mean by cutting it down to half? Cutting the real value in half?

Mr. Fox. No; I mean cutting down the charges to a fair return on the actual cost of the property. For example, I find the Reading property is about equal in cost per mile to the Springfield property and the Springfield property is very similar in every respect. A little later on I can make a more careful comparison. The Springfield company is capitalized at about half of what the Reading company is per mile. And if you are going to get the Reading company to accept a valuation based on actual cost, that will do away, you see, with a very great deal of that trouble. I feel that, for one thing, if the companies will go to the public and say, "Will you go to the courts with us and try to get the courts to protect our investment in this property which we have lost?"—the courts will

work with the companies and the cities in reorganizing these companies, so as to cut down these fixed charges.

Now, is that a practical solution of this reorganization question? I will leave that to you.

Mr. WARREN. Was not the New York property reorganized a few years ago, the surface lines?

Mr. Fox. Yes; it was at one time; but we do not know yet, exactly, what the actual cost of the properties was. The companies have put in, in this present case, an appraisal which the city has not yet been able to obtain and go over; and the rate increases in New York City have not been based on any valuation, but purely on an appraisal submitted by the companies. So that we do not, as yet, know what the actual cost is. Dr. Bemis, if he were to testify before you, would point out that the New York Railways Co. has its property valued at not more than \$45,000,000, and that on that valuation it has earned in the past 10 years an average of over 7 per cent. That is putting its value at a very high figure. That is a valuation of \$300,000 a mile or more. It is more than double the value of the Capital Traction Co. here in Washington, which is a similar underground trolley system.

When we get to the actual cost of the New York property we can tell what the fixed charges are. At the present time it is very indefinite and uncertain. I will take up a little later the question of operating economies.

Now, I want to touch on the matter of remedies which have been suggested to meet the present situation. First of all I want to tell you a little story, by way of illustration, of what a company did to meet a situation like this in another city. In a city of 1,000,000 people a railway was built, something over 10 years ago, at modern prices—Mr. Warren has heard this story before—and the company had just got well under way when the value of the currency depreciated, just as it has as a result of the war, and the manager was right up against it. He could not raise his fares a single cent, because they were already too high. He had jitney competition of the intensest kind to combat, and the company was threatened with bankruptcy. The manager, however, had had training in a school where he was taught to find out what to do. He started in to follow the method of improving his load factor. His load factor was very low. He started out to try to increase his volume of traffic and instead of raising his fares he was bold enough and daring enough to lower his fares. He cut his fares wherever he saw a chance of getting people onto his cars. He cut and cut, and he built up his traffic until he filled 60 per cent of his seats through the day with passengers. His load factor was at least twice as high as that of London. London to-day, with double-deck cars and double-deck trains, as you know, seating 78 people in the motor cars and 48 people in the double-deck trailer, has a load factor of something like 30 per cent—30 per cent of its seats filled. He filled 64 per cent of his seats. He carried 18 passengers a car-mile, against our American average of five or six. He had 4,000,000 passengers per mile of track, which was better than anything in Europe anywhere that I know of. It is beaten, I think, only by one railway in New York City, which has 9,000,000 per mile, which is a 2½-cent fare line. And all of that time he was cutting down his fares.

Commissioner SWEET. Can you tell us what point he cut down to? Mr. Fox. I will give you that at the end of the story.

Commissioner SWEET. All right.

Mr. Fox. He finally built up his traffic, so that the last year I have the figures of, he earned 15 per cent on the cost of the property, on the capitalization; he paid 10 per cent in dividends, and he did it on an average fare of 0.8 of 1 cent.

Mr. WARREN. Where did you say that was?

Mr. Fox. You will all laugh when you see where it is. You will say that is not a case to be considered at all. That was in Shanghai, China. You will say that everything is different in Shanghai, and that it could not be compared at all. But Mr. McCall, the manager, is a man that can even show the English managers how to build up their business.

Commissioner GADSDEN. What fare did he start with—do you recall?

Mr. Fox. I think the fare was something like 3 or 4 cents—the average fare. He cut it about in half, as I remember.

They are increasing fares in London, and this same manager—a Scotchman, by the way, he was—to-day is the severest critic of English street railways. He says English street railways to-day have increased their fares unnecessarily; and he points out, with force, that he is carrying twice as many passengers with twice as good a loading factor as the English County Council, and making more money by doing it.

Of course labor in Shanghai is very low, but he has the jinrikishas to compete with, with coolies dragging them around. And his property is all built at modern-day prices; it has all been brought from America and Europe. So that there you have a suggestion as to the method of doing it.

I have not dared to breathe the question of lower fares in this country for years, because everybody would laugh at me; and it was not until Walker Jackson was sent over to England by Mr. McGraw that I dared to breathe that matter at all. Since he came back, however, and has suggested these low fares, and since the Public Service Corporation of New Jersey has decided to try a 3-cent fare for their first zone, I have felt a little encouraged in pointing out that as a possible remedy.

A few years ago I was in Cleveland to visit Mr. Stanley, and get some ideas for Massachusetts, and Mr. Stanley told about his 1-cent fare line there, from the Public Square to the public docks. He said: "When Peter Witt wanted me to introduce that line, I did not believe in it. I could see nothing in a 1-cent fare." First he refused to consider it, and then he thought he would try it out, and he agreed to it. He told me that that line is one of the best paying lines in Cleveland to-day. It earned 35 cents in August. Apparently he was entirely satisfied with the experiment.

Commissioner SWEET. How long a line is that?

Mr. Fox. Just 1 mile long. You may not realize it, but we have in New York quite a number of low-fare lines. We have got the Van Brunt & Erie Basin, and the Brooklyn Bridge lines, and the lines over the Williamsburg Bridge and the Manhattan Bridge and the Queensboro Bridge. The other day I thought I would look up those lines and see what they were showing. The Williams-

burg Bridge line has the heaviest traffic of any railway in the world, the greatest density of traffic. Its density last year was 9,000,000 passengers per mile of track. That is about double the density of any line in Europe. With all their prosperity in Europe, New York has beaten them out on density of traffic. The average over that line or rather the fare is $1\frac{1}{2}$ cents—3 tickets for 5 cents. It started in with $1\frac{1}{2}$ cents fare, but the company made so much money that the city felt obliged to relieve them of some of it, and kept cutting the fare down until they reached the fare of 3 tickets for 5 cents, and that has resulted from this short line, 1.6 miles of single track. It operates over a bridge, so that it is not a line through a very congested section, but it shows what you can do with a low fare on a line.

Commissioner GADSDEN. With a short haul.

Mr. Fox. With a short haul. It is very much like the Cleveland line.

The Van Brunt & Erie Basin line has been going on fifty-odd years, and it has an average fare of $1\frac{1}{2}$ cents; a cash fare of 3 cents, having transfer arrangements with the B. R. T. which gives them one-third, and the average fare is $1\frac{1}{2}$ cents. That company has been paying dividends and joggling along in the same old way.

Commissioner GADSDEN. What is the average haul there, do you know?

Mr. Fox. I think that line has an average line of about a mile and a half; about the same as the bridge-operating company.

Mr. WARREN. Where was that line?

Mr. Fox. The Van Brunt & Erie Basin line, from Hamilton Ferry, in Brooklyn, to Columbia Street, along the Erie Basin, and the Robbins dry dock.

That line has a very interesting schedule. It is a good deal like the English schedules. They have the same service all day long—no peak load. It is a line with a splendid load factor. They run all day with the same schedule, like clock-work—no peak load at all. That is one reason why they have been so successful, because they have none of this peak-load problem.

Mr. WARREN. You could not apply that to ordinary street-railway lines which do have the peak problem?

Mr. Fox. No. There are very few lines where you can get any such schedule as that, naturally. That is almost ideal.

Mr. WARREN. And almost unique in this country, is it not?

Mr. Fox. I think so; yes. But it is the ideal we want to work for.

Commissioner GADSDEN. What you have said really means, stated in another way, that you cut your fare down when you cut your ride down? In other words, you advocate a low fare for a short ride—a mile or a mile and a half—and if you ride another mile you get another cent and a half? That is what the illustrations you have given signify?

Mr. Fox. I think that we can make the most money in this country if we keep the 5-cent fare for the ordinary travel and introduce a low fare of $2\frac{1}{2}$ cents or 3 cents for the short haul—that is, to build up this off-peak travel.

There are two ways of building up the off-peak load. One way is to have the low fare for all the system in off-peak hours, and the other way is to simply have the low fare for short rides.

In this country our rule has been to have low fare at the rush hours, which is the worst thing of all.

The low fare for the off-peak hours has been tried out West with considerable success. On one line it was tried in Lynn, Mass., for a short time, but not long enough to really try it out.

Mr. WARREN. It was not a success, though, as long as it was tried out?

Mr. FOX. No. You have to have a lot of advertising for anything like that, and you have to be patient until it is built up. It can not be done in a moment.

My feeling is, however, that with a low fare for a short haul you have the safest proposition, and the most feasible one. That is, introducing into your cities what Mr. Stanley did in Cleveland, what we have in New York City, and what has been so successful in Europe.

I was going to say something about the question of increased fares and their effect on traffic, but you will probably hear a great deal about that from other people.

I tried in Massachusetts very hard to keep some of the companies from increasing their fares, particularly Stone & Webster, but without much success. My experience has been that the increased flat fare has not been a success. It is certainly true in the companies that I have been working with. It is particularly true in Reading, and it has the unfortunate result that it makes your load factor worse, instead of better. Right there in Reading to-day the cars are empty during the slack hours. They are full during the rush hours, but the slack-hour traffic is almost gone. The company could take a lot of their cars right off in the slack hours, because the business is all gone entirely. The manager there felt the same way I did; and I tried in every way to get the company not to raise their fares in Reading; but unfortunately the man who had the last say was a banker and not a manager, and so he raised the fares, and the manager was overruled.

Now, may I point out one or two instances of the result of increased fares? And, by the way, I hope the commission will get the facts about this increased fares justification, the real truth of it; and in doing so remember that we must compare the increased fares with the normal increase which would have taken place if the fares had not been raised, which is very hard to get, of course.

At Dallas, Tex., they got an increase of 33 per cent the first year under the new franchise there, Mr. Strickland reports.

Seattle got, in May of this year, an increase of 16 per cent over last year—an extraordinary increase. You are probably aware of the fact that Mr. Strickland, the Dallas president, said that he would rather get out of business than to raise his fares. He expressed himself very strongly. He said the increased fares had been a failure, and he would rather resign than to make any attempt to put them into force.

Boston, of course, has got an increase, but it has got it at an enormous disadvantage to the public and, it seems to me, a great disadvantage to the company itself.

I know one manager who takes the ground that the way to make the company operate to-day is to find every passenger who has got to ride, and then make him pay the price and soak him.

None of us would take that extreme view, I think, and yet that is the tendency in certain quarters; is it not? And is it not very unfortunate for the companies themselves, particularly on account of its effect on their load factor, accentuating the peak load, and making things worse and worse?

I am doing some work for a city in Massachusetts to-day where the city officials would like to see all the street-cars taken off the streets and the jitneys put in—jitneys in the shape of buses.

I am not in favor of the jitney: I am sorry to say I can not agree with Mr. Babson on that. I believe the street-car should have the right of way. I think it is to the advantage of the public to have street cars have the main traffic on our streets, and I believe that in the end if you will operate one-man cars, with the best service and the cheapest service, that the street-car every time will demonstrate its superiority over the jitney. And yet here in this city I am speaking of, where the fare is now so high that the people have deserted the street-cars, the city officials are in favor of taking all the cars off entirely, which I think would be very unfortunate indeed.

Mr. WARREN. What city was that in Massachusetts, may I ask?

Mr. Fox. That is the city of Newton.

The reason why people will not pay more than 5 cents is pretty well understood. It is the psychology of it. The people are not willing to pay more than a nickel. It is prejudice. There is no reason for it. They simply will not do it. They say: "We could afford to pay more, but we will not do it."

I was impressed in Springfield with the fact that in Springfield, where everybody is willing to pay increased fares whenever increased fares were introduced, the traffic fell off. In Springfield everybody was on the side of raising the fares, in favor of raising the fares, and I could not get my clients at all to agree to extend the 5-cent fare. They were all willing to pay 6 cents. And yet when the increased fares went into effect the riding fell off, particularly on the 5-cent lines, where the fare was not raised at all.

Mr. WARREN. Where do you get that information?

Mr. Fox. From the public service commission. That was when the first fare raises went into effect.

Mr. WARREN. That the falling off was on the 5-cent lines?

Mr. Fox. Yes.

Commissioner GADSDEN. On the lines where there had been no change of fare at all?

Mr. Fox. Yes.

Commissioner GADSDEN. How do you account for that, psychologically?

Mr. Fox. There were some people there, I suppose, who had a grudge against the company. I do not know. It is almost unexplainable.

Mr. WARREN. There was no opposition from that part of the territory, was there?

Mr. Fox. It has occurred in more than one city, that very thing.

Commissioner GADSDEN. In that instance they would seem to have resented the fact that the fare has not been raised on that line?

Mr. WARREN. That is like the case in the West where we went to a 6-cent fare and had less loss of traffic than we had the month before under the 5-cent fare.

Mr. Fox. It will take some psychologist to explain some of these results. I think they are above any practical operating man.

Commissioner GADSDEN. Have you followed that out? What has been the subsequent history of that?

Mr. Fox. No, Mr. Commissioner; I have not had time to follow the Springfield figures.

Commissioner GADSDEN. When was the rate increased, if you know?

Mr. Fox. That was put in a little over a year ago, was it not, early in 1918?

Mr. WARREN. It was put in May 1, 1918.

Commissioner GADSDEN. We have had a good deal of testimony here to show that, while there was a falling off at first, running from one month to a year, eventually the traffic came back on some of these lines; and I was wondering whether that was true of the line you spoke about.

Mr. Fox. Well, I could not tell you, sir. The Springfield company can undoubtedly give you some facts along that line.

If I had had a little more time I would have been able to get more figures ready, but I did not expect to testify to-day, and I have not had time to get all the figures together.

Perhaps I had better make this suggestion: When Mr. Dalrymple came to Chicago for Mayor Dunne in 1905, he was not very well pleased with his reception in America, and did not give a very good report on things over here, especially in regard to municipal ownership. When he got back to England he expressed himself quite freely.

I was in England when Mr. Dalrymple came back, and I had the advantage of getting at some of his personal views; and his views with regard to fares were extremely interesting.

He said that he thought the American companies would make the most money if they had the 5-cent fare with free transfers as their ordinary, basic fare, and a lower fare for short haul, not more than 2 cents, just the suggestion I made a little while ago; and he felt very strongly that our companies were throwing away business by not introducing that low fare for short hauls. That was a private opinion not expressed for publication in America, of a man who had had the most success in Europe with the 1-cent fare, as you know.

At that time, when I was in England, I thought of looking into the matter of the low fares very carefully. So I got hold of several Americans in England that I knew in the street-railway work and asked their judgment about the matter; and they all felt the same way as Mr. Dalrymple did—that our American companies would get very much larger receipts from what you might call a zone fare of that kind, and they said: "Don't charge more than 2 cents. If you get it started in America, don't charge more than 2 cents."

I came back with the idea of suggesting that in Boston to the Boston Elevated Co. I worked for a long time, giving them suggestions; and my idea was in Boston to put in, in the center of Boston, something like you might call an English tramming system. In other words, to put in the center a series of short-haul lines. Boston to-day has torn up most of the surface tracks downtown, and put the surface cars underground, or taken them off.

Mr. WARREN. You do not mean most of its tracks?

Mr. Fox. The surface tracks in the business section of the city. It is running no cars in Washington Street, very few on Summer Street. They have been very largely taken off.

Mr. WARREN. They have not taken up many of those tracks, except on Tremont Street?

Mr. Fox. But they operate no cars on Washington Street at all.

Mr. WARREN. The tracks are there.

Mr. Fox. The rails are there; yes.

My idea was to get down more instead of less, and introduce motor buses on some of the streets where there were no street-car tracks, like Beacon and Arlington, covering Back Bay, Beacon Hill—

The CHAIRMAN. And have the motor buses operated in conjunction with the railroad and as a part of it?

Mr. Fox. Yes; just as is done very largely in England as feeders and to fill up the links in the system.

The London County Council has just asked for the right to operate a great many more buses as connecting links between detached-service lines.

The CHAIRMAN. The time for adjournment has arrived, Mr. Fox. How much longer will it take you to complete your formal statement?

Mr. Fox. I do not quite know, Mr. Chairman. I am at your disposal only as long as you are really interested.

The CHAIRMAN. We are always interested in any new phase of this problem.

Mr. Fox. I came to Washington not expecting to testify to-day, but to fit in at any time, and I was expecting to stay on a little bit and hear some of the others first.

The CHAIRMAN. Mr. Warren, and the rest of you, we have a long program of witnesses here for this week. There is an average of about six persons per day.

Mr. OGBURN. There are three to be added to that list, Mr. Chairman.

The CHAIRMAN. There are three to be added to that list, and Mr. Ogburn has filled up the program for Monday, Tuesday, Wednesday, Thursday, and Friday. I readily see that we have got to go back to the practice of night sessions. Are you so fatigued, Mr. Warren, after the last experience, that you would not like to try it over again?

Mr. WARREN. I am entirely ready, Mr. Chairman. If you will guarantee weather like this, I would rather have evening sessions than one day of the kind of weather we had before.

The CHAIRMAN. We will take an adjournment at this point until 10 o'clock to-morrow morning, and beginning to-morrow we will have night sessions.

(Whereupon, at 5 o'clock p. m., an adjournment was taken until to-morrow, August 12, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., August 12, 1919—10 a. m.

Met pursuant to adjournment.

Tresent: Parties as before.

The CHAIRMAN. Mr. Ogburn, who is your first witness?

Mr. OGBURN. The first witness is Mr. Carl H. Mote, the secretary of the Indiana Public Service Commission.

The CHAIRMAN. Mr. Fox was on the stand, but he has kindly consented to permit some of these commissioners and others who must get away during the day to give their testimony first.

STATEMENT OF MR. CARL H. MOTE, SECRETARY OF THE INDIANA PUBLIC SERVICE COMMISSION.

Mr. MOTE. Mr. Chairman, and gentlemen of the commission, I have prepared a brief statement with respect to the Indiana situation which, if it pleases the commission, I will read. It is not long. Then I will answer any questions which the commission or any one here may see fit to ask, if I can.

Indiana has somewhat less than 2,500 miles of electric street and interurban railways. They have, of course, been affected by the present era of high prices, though I should think not in the same degree as electric railways in the Eastern States. I am sure our situation has not been identical with that in New York, Massachusetts, Rhode Island, and perhaps other Eastern States, for the reason that the fixed charges of the Indiana roads have always been much less in proportion to the actual valuation than in many of the Eastern States, from which I understand the demand has come for the creation of your commission.

Still, most of the Indiana roads were, and are, overcapitalized. Our public-service commission, which assumed full and complete jurisdiction over the affairs of electric interurban railways, in spite of the 2-cent fare law, which I will interpose and say was applicable to railroads, and our commission held finally that an electric interurban is not a railroad but a public utility within the meaning of our public-service-commission act, and within that meaning took full and complete jurisdiction and increased subsequently, as I will set out, the fares of these roads.

This law has since been repealed by the legislature, in 1919. Our commission first increased the fare of a single road to $2\frac{1}{2}$ cents. Later, all the roads were increased to $2\frac{1}{2}$ cents and still later with one exception they were all increased to $2\frac{3}{4}$ cents. Freight rates have been increased from time to time until the level now in effect on steam roads prevails in Indiana. Our commission and most of the carriers, I believe, have agreed that it was a good policy to keep passenger fares on the electric interurbans slightly below the level of passenger fares on steam roads, and a differential of one-fourth cent now prevails, the steam rate being, of course, 3 cents, and the interurban rate $2\frac{3}{4}$ cents.

On the whole, I believe this policy has been justified, in spite of the fact that some, at least, of the neighboring States have put interurban on a straight 3-cent basis.

The Public Service Commission of Indiana has granted no increases in electric-railway rates without a tentative valuation of the

property involved. In some cases, we have had to face situations where fixed charges exceeded the normal return that would attach to the valuation as made by the commission. In every case of this character we have been rather explicit in suggestions that financial reorganizations were necessary. The roads themselves, in a good many instances, have responded to these suggestions. We have reached a few properties also in merger proceedings and accomplished the same end. In the reorganization of the street-railway companies of Indianapolis, the fixed charges were reduced more than \$300,000 annually, and the securities from \$25,000,000 to less than \$19,000,000. One of our larger interurban companies is now going through a friendly receivership, as a consequence of which outstanding securities will be reduced from \$18,000,000 to \$12,000,000. This is the only receivership we have had in Indiana.

The CHAIRMAN. What is the process of reducing these securities?

Mr. MOTE. If it is bonds, an agreement with the bondholders is obtained through the trustee and through an actual canvas of the bondholders to accept, in lieu of securities which they hold at the present time, securities of a new issue in a lesser amount than those previously outstanding.

The CHAIRMAN. How about stock?

Mr. MOTE. The same way. In the Indianapolis case some of the stock of the Indianapolis Traction Terminal Co., which was the operating company in Indianapolis, was held by the Terra Haute, Indianapolis & Eastern Traction Co., which was an interurban property, specifically and strictly speaking. The Terre Haute, Indianapolis & Eastern had pledged this stock under a mortgage and there was an agreement reached by which that stock should be surrendered, within the company itself, and it was wholly voluntary, brought about at the suggestion of our commission, but nevertheless and finally it was voluntary.

Mr. WARREN. Mr. Mote, was that reduction to a figure that the commission felt was approximately the value of the property?

Mr. MOTE. In the case of the Indianapolis Traction Terminal Co., or rather the Indianapolis Street Railway properties, we made a tentative valuation of the property and found that the value was anywhere between \$14,000,000 and \$16,000,000. We brought the securities down to \$19,000,000 and actually they will be subsequently reduced to about \$18,000,000, so that will answer your question, I think.

The CHAIRMAN. Just one further question. If you fixed the value which you regard as the true value of the property at \$14,000,000, how do you permit a capitalization to be rewritten to \$19,000,000?

Mr. MOTE. Well, this was in a merger proceeding and the law of our State provides that the securities issued in case of a merger shall not exceed the total of the outstanding securities, and anyway the law of our State does not permit us, except in an incidental way, to consider securities as a basis for rate making.

Mr. WARREN. You consider the value?

Mr. MOTE. We consider the value of the property.

The public service commission has also tabooed unreasonable sinking-fund charges, where the plain intention was to amortize the capital invested. Our commission required the Indianapolis street-railway properties—and I say properties here rather than

company, because there were one or two underlying companies before the operating company—to reinvest the accumulated surplus in the sinking fund in physical property, amounting to about \$2,500,000. That has not yet been done, but it is in process and is to be done, and it is to be reinvested in improvements to the property which we recommended and urged should be made.

Mr. WARREN. Was that sinking fund included in the valuation as an asset?

Mr. MOTE. No; it was not—and to discontinue the payment of interest on sinking funds already accumulated. There was an arrangement in this particular case whereby a given amount was paid into sinking funds on two bond issues each year. The bonds were not canceled, but continued to draw interest even though they were theoretically in the treasury of the company and taken up by the company.

Our commission has been able so far to keep the electric railways solvent and, in a period of great stress, to maintain fair standards of service.

Frankly, I am of the opinion—and I am sure it is the unanimous opinion of our commission and of the people of our State—that we are capable of handling the electric-railway problem, and so far as we are concerned we look upon the work of your commission—I say this in all kindness, but as an emphatic statement of our feeling with respect to the matter—so far as our local situation is concerned, as unnecessary. During the war period we have kept pace with the extraordinary number of petitions filed and have acted promptly on petitions for release. We have less than 100 cases on our docket now, and with one exception where we doubted our jurisdiction to act, we have generally acted within one month from the date of filing of an application for increased rates.

Mr. WARREN. Apparently, you have a record.

Mr. MOTE. I think so.

Commissioner GADSDEN. An unusual one, too, I should think, according to the testimony before us.

Mr. WARREN. The average in Massachusetts a year ago was four months. I think it has been reduced since then.

Mr. MOTE. We had on our docket when our commission was reorganized in May, 1917, about 673 formal cases. During the first year, from May 1, 1917, to May 1, 1918, we disposed of something more than 2,100 formal cases, and on the first day of May, 1918, there were 76 formal cases on our docket at the close of one year after our commission was reorganized. And we proceeded frankly on the theory that the public-service commission is an administrative body and that its functions fail absolutely unless they are performed promptly, and that is the theory that we have operated on.

Of course, I recognize that, generally speaking, the electric railways of the country are dead broke, but our people from over the mountains feel pretty keenly that the creation of your commission has been brought about by electric roads and as a consequence of conditions prevailing in States other than Indiana. Indiana by no means has escaped the effects of speculation in the pioneer days of electric-railway building and financing, else the reorganizations already consummated and now in process and to be accomplished, would not have been and would not be necessary. I believe it is the

theory of our commission that we are not called upon to protect the return on securities that represent no value and that were issued in pioneer days in anticipation of future earning power that has not been realized.

The truth is that the electric interurban railway has been a huge disappointment to the hopes and judgment of their promoters. The advent of the automobile was not foreseen, and I do not think we have reached the peak of its effect on interurban traffic, either passenger or freight. The building of hard surface roads is bound to bring the motor-driven truck into more active competition with the electric railway for the transportation of short-haul freight, and the trouble with the jitney bus is already well recognized. I look upon their future as anything but promising.

Our policy in Indiana is to deal promptly and effectively, with careful consideration of all local factors, in maintaining our electric railways so far as humanly possible. We shall not hesitate to increase rates up to the point where competition operates to reduce rather than increase revenue, where this is necessary and fairly proved.

We have increased street-railway fares to a straight 5-cent level and, so far, have had good results. We hesitate to go above this level because of the experience elsewhere, revenue having been actually decreased with each increase in rates above the 3-cent level, in a good many places at least. In Indianapolis, where a 5-cent fare amounts to a 16 per cent increase in rates, revenue was increased 25 per cent. The difference is accounted for by the adoption of pay-as-you-enter cars and the collection of fares formerly lost, by the return of the soldiers, and the general revival of social and business activities with the end of the war.

Right here I want to interpose something that is not in the statement. We have found in a good many cases bad conditions of operation. We found in the Indianapolis case a tremendous loss of power due to a failure to have built substations. We found the company was dissipating power of tremendous value into the air because of the want of these substations, and on some of our interurban properties we found tremendously bad operating conditions. One at least of the interurban companies operating in Indiana has had within the last six months three pretty bad wrecks that ought to have been avoided. One case, where block signals were installed, they were out of repair; and the evidence in the case showed that it was the practice of this company to be careless with the maintenance of these signals. The wreck will cost the company \$150,000. It ought to have been avoided. It has been true in two or three other cases. As a matter of fact, going back beyond the period of the war to about 1910 or 1911, we had in Indiana a great number of very bad wrecks.

The CHAIRMAN. Is there any State in the Union where you have had more disastrous wrecks than in Indiana?

Mr. MOTE. I doubt it. As a consequence of a series of wrecks we had upon a number of roads the old railroad commission ordered the installation of block signals, and that work was being done up to the time of the war period. Of course, it was suspended at that time because of the general war policy to avoid construction work. But the Fort Wayne & Northern Indiana Traction Co.,

which is, I see, listed in the announcement of your commission as one of the roads in the hands of a receiver, was formerly the Fort Wayne & Wabash Valley Traction Co. It had a wreck in Kingsland, Ind., in 1911, I think it was, which must have cost it three quarters of a million dollars. I am just speaking offhand, and I do not know, but I think there were 40 people killed in the wreck—a tremendous disaster. It went into receivership at that time as a consequence of the tremendous number of damage suits accumulated. Of course, it ran along, and now it is going through this reorganization, which is a friendly reorganization to reduce its securities. That is its present purpose, as I understand it, largely.

But I do want to emphasize that we have found the roads themselves not faultless in the matter of operation. We have found in some cases decidedly poor operation.

The CHAIRMAN. Have you suggested economies in operation?

Mr. MOTE. Absolutely; in every instance, specific.

The CHAIRMAN. Can you indicate the general nature of those suggestions?

Mr. MOTE. Well, in the case of the Indianapolis Street Railway Co., the company was told that these substations must be constructed. They had, as I have already said to you, \$2,500,000 in this sinking fund. We said to them, "This money must be taken out of the sinking fund and applied to the rehabilitation of this road." We did not specifically say it must be spent in the building of substations, but there was a plain implication that that must be done immediately; and they frankly understand it is to be done, and moreover—

Commissioner GADSDEN. Was not that money in the sinking fund there by reason of a provision in their mortgage?

Mr. MOTE. Yes.

Commissioner GADSDEN. The company was helpless, then; was it not? You say they did not put this up voluntarily. That was a condition in the mortgage, I imagine, was it not?

Mr. MOTE. That is correct.

Commissioner GADSDEN. Suppose you ordered them to take it out; they can not take it out unless the mortgage provision is changed, can they?

Mr. MOTE. I am assured that will be done.

Commissioner GADSDEN. But it has to be done? The impression that I got was that the company was making so much money that they were putting money in a sinking fund—

Mr. MOTE. Absolutely not. This money has accumulated in the prosperous years of the company.

Commissioner GADSDEN. As a matter of fact, the company would be glad to get money to put into these things?

Mr. MOTE. Yes; and we have urged them to do it.

Commissioner GADSDEN. And you are going to help them?

Mr. MOTE. We are going to help them work it out. They want to use it. The situation is altogether friendly. Does that answer your question, Mr. Chairman?

The CHAIRMAN. That was as to the Indianapolis road. But what others?

Mr. MOTE. Well, they made a survey of the Union Traction Co.—their power situation. They have had a great deal of trouble with

respect to the operation of their cars on account of failure of power. We found the trouble in their power houses. Our engineering department made that survey, and recommendations have been made to them for the reconstruction and rehabilitation of the power houses, for instance.

Now, in the case of this one wreck that I speak of, it was due to a failure to maintain their signals. The order has not been issued, but it will require this company not to give orders for the disregard of an entire system of block signals, but only one block signal when it is out of repair, which will automatically operate to compel the company to maintain its signals so far as possible.

The CHAIRMAN. Has your experience led you and your commission to believe that one of the prime duties of a commission is to inspect tracks, equipment, power houses, and all things in connection with service, to make such recommendations?

Mr. MOTE. We found it necessary.

The CHAIRMAN. Have you found it helpful, in the public interest?

Mr. MOTE. We have.

The CHAIRMAN. Have you found the companies opposed to the recommendations which you have made?

Mr. MOTE. Well, in a few instances the companies have said that we have been pretty strict and pretty rigid in our requirements.

The CHAIRMAN. Have they complied with your requirements?

Mr. MOTE. Yes; in a general measure they have, in a general way; and they have shown a disposition to in those cases which are pending. Some of these things I speak about are still pending before our commission.

Fifty per cent of revenue collected from increased fares in Indianapolis was set apart by our commission for increased wages. Since that date, a further increase has been granted voluntarily by the company. Interurban-railway wages have also been increased materially. We have had no strikes, and, so far as I know, no serious unrest among electric-railway workers.

I do not believe we have any applications from Indiana in the electric railway field for increased wages presented to the National War Labor Board. I think that is correct. The public-service commission, while it has no direct jurisdiction in the matter of wages, has seen to it nevertheless that electric-railway workers got a share of the revenue that has come from increased rates.

The Indiana Commission would approve the cancellation of franchise obligations requiring paving between the tracks, the payment of a portion of earnings to municipalities and partial relief from taxation, as a last resort only, to save the properties. Generally speaking, where franchises—

The CHAIRMAN. On that point, has your commission or the legislature found it necessary to eliminate any of the taxes or paving requirements to preserve any of these industries?

Mr. MOTE. No, sir.

The CHAIRMAN. Not yet?

Mr. MOTE. No. Generally speaking, where franchises have not been surrendered, as provided in our law, I believe the moral effects of relieving electric-railway companies from their franchise obliga-

tions would be bad and unwarranted except, as I have said, as a last resort.

The CHAIRMAN. Why do you make that statement?

Mr. MOTE. For the reason that it is the effect upon the public, the effect of the company's escaping something that is tangible, something the public knows is being given up or taken away; and they have come to depend upon that. In some cases, while the amount of money that would be paid into the treasury of a municipality as a franchise tax is not great, yet it might affect the operation of the city, and, like all the rest of the country, we have gone dry in the State of Indiana, and that has affected somewhat our revenues, and so our cities are badly pressed at the present time for funds, at least to the extent of readjusting their financial affairs so that they can take care of this loss of revenue which had not been anticipated.

Mr. WARREN. Are you going to speak of the franchises in connection with the jurisdiction of your commission before your statement is finished?

Mr. MOTE. No; I will be glad to speak of that now. We are in this situation in Indiana: The original public-service-commission law passed in 1913 provided that public utilities might surrender the franchises—

Mr. WARREN. Those were fixed franchises?

Mr. MOTE. Franchises granted locally by municipalities.

Mr. WARREN. But for a fixed term of years?

Mr. MOTE. Yes; and for a fixed term of years. That was subsequently extended to June 30, 1917. It was extended by the legislature of 1915 to June 30, 1917, during which period a number of companies did surrender their franchises. A number did not. Fortunately, there was incorporated in our law our famous section 122, which is the so-called emergency section under which we are authorized to grant relief in emergencies without respect to franchises. We can not waive a franchise, but, so far as rates and fares are concerned, we can suspend them temporarily. That is under section 122 of our act, which has been upheld by our courts.

Mr. WARREN. The general principle being that the surrender should precede the granting of relief?

Mr. MOTE. That was the theory of the act, but, fortunately, we were saved and they were saved by section 122 of our act.

Mr. WARREN. When they surrender the franchise, what happens?

Mr. MOTE. They will get what is termed the indeterminate permit.

Mr. WARREN. That is the policy of the State, I judge?

Mr. MOTE. Absolutely.

Mr. WARREN. And has the approval of the commission as the better form of franchise?

Mr. MOTE. Absolutely.

Mr. WARREN. And what you said about not relieving them from franchise obligations, even if they were unduly onerous, applied only in cases where they refused to comply with that theory of the act by surrendering their fixed franchise and taking an indeterminate one.

Mr. MOTE. Well, it applied to the theory—if I may explain what I mean with respect to what the law is—it just applied to the theory of it. I was discussing it as a policy.

Mr. WARREN. That is, if they wanted to hang onto their franchise because they thought they had something valuable in it, then they ought to be relieved of these burdens imposed by the franchise?

Mr. MOTE. They ought not to be.

Mr. WARREN. They ought not to be?

Mr. MOTE. Yes.

The CHAIRMAN: Does your law permit future legislatures to modify any franchise permits?

Mr. MOTE. Why, one of the last questions we were discussing before I came East—in our last legislature there was an attempt, as there was in most States, to repeal our law. I never did think it was very serious and amounted to a great deal. But, as a consequence of the agitation, there was introduced and passed by our legislature an act providing that, where public utilities had surrendered their franchises, franchises which provided for service at special rates or free service to municipalities, this free service or this service at special rates should be rendered regardless of the fact that the franchise had been surrendered.

Now, that is a mandate to our commission. And we have a number of applications pending just now, just filed. I do not know why we happen to have escaped it so long, but several applications are pending now asking that the public utilities be required to furnish this special service, or service and special rates, or free service, as the case may be; and, of course, it is up to us to decide what they shall do about it. I do not know what we shall do.

Mr. WARREN. The act was passed, then?

Mr. MOTE. Yes, sir; the act was passed.

Mr. WARREN. Is it confined merely to free or reduced service to the municipality in its corporate capacity, the city employees or things of that kind, or to the public generally?

Mr. MOTE. Just to the city in its corporate capacity.

Mr. WARREN. So if the franchise had a rate fixed for the general public, and the franchise has been surrendered—

Mr. MOTE. It would not apply in that case at all.

Mr. WARREN. The jurisdiction of the commission would be complete?

Mr. MOTE. It would not apply in that case at all. For instance, heating service to a public library or to the city hall.

Commissioner GADSDEN. And carrying policemen free?

Mr. MOTE. Well, that is another question. The legislature of 1917 passed a law requiring street-railway companies to carry policemen and firemen free of charge, and a petition was filed before our commission asking that one of our companies be required to comply with that law. Well, we could have dismissed it for want of jurisdiction or for any one of a number of reasons. It was a law, and we do not operate as a court, and it was not up to us to decide it. We did, however, enter an order requiring them to do it so as to get a record before the courts, and they brought suit to set aside the order and that is still pending.

The CHAIRMAN. I am not sure that you answered the question I asked.

Mr. MOTE. I am not sure whether I did, either.

The CHAIRMAN. My question was whether the law in your State permitting the surrender of a franchise and taking in lieu thereof

an indeterminate permit contains the provision that the legislature at some future session can change that law?

Mr. MOTE. It contains no provisions whatever in regard to that feature.

The CHAIRMAN. Proceed.

Mr. MOTE. The so-called service-at-cost program is actually the program we are supposed to follow under the public-service commission law of Indiana, and for that reason we hear nothing about it in our State. I am not familiar with the origin of the phrase, but I imagine its inception could be traced to some municipality where the electric railways were overloaded with fixed charges and where it was designed to produce sufficient revenue to meet exorbitant fixed charges as well as actual operating expenses, including maintenance and depreciation. Service at cost involves, first, a correct valuation of the property. There is no means of knowing what the cost of electric-railway service is, unless this basis is known. I should think cities without facilities for ascertaining valuation, might be led into a position of agreeing to provide a return on excessive valuation, in which case there would not be service at cost at all, but service at an excessive cost. To me the phrase represents merely a straining to name a process or a theory already in practice in Indiana.

The electric-railway situation finally may get beyond control of our commission because of the generally recognized factors which are operating everywhere.

Mr. WARREN. I did not quite catch the first part of that sentence.

Mr. MOTE. The electric-railway situation finally may get beyond the control of our commission because of the generally recognized factors which are operating everywhere; but I am inclined to believe that the Indiana roads, in their present condition, and having in view the policy which I know our commission has pursued and expects to pursue with respect to them, will be the last to hit the rocks.

Commissioner GADSDEN. Just what have you in mind by saying it may get beyond their control?

Mr. MOTE. I mean there may come a situation where an increase in rates will amount to a reduction in revenue.

Commissioner GADSDEN. Will not produce revenue?

Mr. MOTE. Yes.

Commissioner GADSDEN. I just wanted to get your thought.

Mr. MOTE. And where revenue is absolutely necessary to maintain the solvency of the roads. Now that would be beyond our control, I think. That might come. We do not know what is in store for us.

Commissioner GADSDEN. What has been the experience of the Indiana roads on increased revenue from the increased rates you have given?

Mr. MOTE. It has been very satisfactory. It has done the work; it has produced the revenue. When we first granted the increase to the Indianapolis & Cincinnati Traction Co. from 2 to 2½ cents, it was during the war period and the results were not satisfactory over a period of about three months; in other words, there was a very slight increase only in their net revenue, but subsequently the

result was very much improved and the net revenue increased materially, and even increased from the change from $2\frac{1}{2}$ to $2\frac{3}{4}$ cents.

The CHAIRMAN. That was a suburban line?

Mr. MOTE. It was a line running from Indianapolis to Connersville some—well, I think it consists of 70 or 80 miles of track running out to two towns 40 or 50 miles from the capital, an interurban line.

Commissioner GADSDEN. What has been the experience of the Indianapolis road itself, the city road?

Mr. MOTE. A 16 per cent increase in rates yielded 25 per cent increase in revenue, but those figures are approximate.

The CHAIRMAN. Have you finished your formal statement?

Mr. MOTE. Yes.

The CHAIRMAN. I have a few questions to ask you. Does the State authorize your commission to prescribe maximum rates for street cars and interurban lines?

Mr. MOTE. It contains no provision about maximum rates.

The CHAIRMAN. But you have the right to fix the rates?

Mr. MOTE. Yes.

The CHAIRMAN. There is no limitation upon your power?

Mr. MOTE. No.

The CHAIRMAN. Other than that the rate shall be reasonable?

Mr. MOTE. That is all.

The CHAIRMAN. Are there any street-car systems in Indiana that charge more than 5 cents at the present time?

Mr. MOTE. No.

The CHAIRMAN. Are there any of those systems in the hands of a receiver?

Mr. MOTE. The one case that I mentioned, the Fort Wayne & Northern Indiana Traction Co.

The CHAIRMAN. That is not a street-car line.

Mr. MOTE. It includes interurban and the city street car lines in Fort Wayne.

The CHAIRMAN. How many miles of interurban has it?

Mr. MOTE. I am unable to say offhand. It is one of our larger systems—three or four hundred miles of interurban, I think.

The CHAIRMAN. Have you caused investigation of that system to ascertain why it went into the hands of a receiver?

Mr. MOTE. I am able to speak in general terms. I personally have not handled that particular case, but a full and complete investigation I daresay has been made. One of the purposes of its going into the hands of a receiver was to reduce its securities, the securities outstanding exceeding the value of the property.

The CHAIRMAN. Did the rate situation have anything to do with the receivership?

Mr. MOTE. The revenue was increased, if that is what you mean. That is, do you mean by that did it operate to depress the earnings of the company?

The CHAIRMAN. Yes.

Mr. MOTE. No; it did not. Now—

The CHAIRMAN. The evidence before this commission shows that in a great many States the street car systems have been obliged to increase their rates all the way from 5 to 6, 7, and 8 cents, in some cases, and even under those large charges they have not been able to pay operating expenses and meet their fixed charges. If that

is so in many of the Eastern States and in some of the Western States, how do you account for the fact that the systems of Indiana are operating without difficulty on a 5-cent fare?

Mr. MOTE. I would not want to make a categorical statement, and I really have substantially made it at that. I very much suspect, however, that the fixed charges on many of these properties are excessive.

The CHAIRMAN. You have stated that the street-car systems in Indiana were overcapitalized.

Mr. MOTE. Yes; but not to the same extent I suspect as they are elsewhere.

The CHAIRMAN. What per cent of overcapitalization have you found in Indiana?

Mr. MOTE. I will have to answer it, roughly speaking, for the roads as a whole; I should say 15 or 20 per cent.

The CHAIRMAN. How many street-car companies are there in your State?

Mr. MOTE. What do you mean by street-car companies? Interurban companies and city companies?

The CHAIRMAN. I am speaking now about street-car companies performing service within the cities.

Mr. MOTE. Well, I will name them, if I may answer your question in that way: Indianapolis, Fort Wayne, Logansport, South Bend, Evansville, Terre Haute, Richmond, Lafayette, New Albany, and Jeffersonville are the principal ones. There are some smaller cities that have a few miles, but those are the principal cities.

The CHAIRMAN. The only company in financial difficulty is at Indianapolis?

Mr. MOTE. Well, the Fort Wayne & Northern Indiana, which has its headquarters at Fort Wayne.

The CHAIRMAN. Yes.

Mr. MOTE. I should not say that the company at Indianapolis is in difficulty. I do not mean to say by that that it has not been, but under the present conditions I should not say that it is in trouble. It may be almost immediately. Our commission may have to increase fares in Indianapolis. I am sure I can not tell. They have increased wages amounting to about \$125,000 a year there within the last month and it may be necessary.

The CHAIRMAN. Does the 5-cent fare apply in all the cities you have mentioned?

Mr. MOTE. It does.

The CHAIRMAN. Did that fare also exist prior to the entrance into the war?

Mr. MOTE. No; in almost every case there were fares at the rate of 25 tickets for a dollar, or 6 tickets for a quarter—I think in practically every case—and our increase has been an increase from that rate to a straight 5-cent basis.

Mr. WARREN. You figure that at about 16 per cent?

Mr. MOTE. Yes.

Mr. WARREN. That means that nearly everybody used the tickets.

Mr. MOTE. Yes. I had to estimate it. It is pretty hard to arrive at it accurately, but that is about what it is.

The CHAIRMAN. The companies purchase all their coal from the Indiana mines?

Mr. MOTE. Substantially all of it.

The CHAIRMAN. What is the price of coal in Indiana used by these companies?

Mr. MOTE. Well, the price has varied somewhat. During the war period I think it ran as high as \$4.10. I believe that the companies now are paying about \$2.90 to \$3.

The CHAIRMAN. What were they paying prior to the war?

Mr. MOTE. Around about \$1.

Mr. WARREN. Was that delivered at the power station?

Mr. MOTE. No; I am talking about the price at the mine.

Mr. WARREN. At the mine?

Mr. MOTE. At the mine.

The CHAIRMAN. How do your wages compare with the scale adopted by the National War Labor Board?

Mr. MOTE. They are less.

The CHAIRMAN. How much less?

Mr. MOTE. Ten or 15 per cent.

The CHAIRMAN. Have there been any strikes in your State?

Mr. MOTE. No.

The CHAIRMAN. No labor agitations?

Mr. MOTE. No, sir.

The CHAIRMAN. Is the cost of living cheaper in your State than in some of the other States?

Mr. MOTE. Yes; it is cheaper, for instance, than it is in New York City and Boston and the larger cities.

The CHAIRMAN. I should hope so.

Mr. MOTE. Or Washington, even.

Mr. WARREN. You have already discovered that; have you?

Mr. MOTE. Yes; I have.

The CHAIRMAN. Do many of your companies extend their lines into two or more villages or cities?

Mr. MOTE. No; we have not that situation to contend with very much. They are not built up in that way.

The CHAIRMAN. Have you any line that extends into more than one city?

Mr. MOTE. You are speaking about strictly street railways?

The CHAIRMAN. Street railways.

Mr. MOTE. Well, yes; in the northern part of the State, Gary and Hammond and East Chicago; of course, that is almost one city there. There are Gary, Hammond, East Chicago, and Whiting, but there are separate corporations operating in some of these cities. I think I should say no to that question, generally speaking.

The CHAIRMAN. How do you regard the commission form of regulation of these utilities?

Mr. MOTE. What do you mean, Mr. Chairman?

The CHAIRMAN. Well, is it the best method of regulating these utilities, both for themselves and for the public?

Mr. MOTE. I think so. I think it is the only method.

The CHAIRMAN. Do the villages have any control over either the service or the rates of these street-car lines?

Mr. MOTE. Very incidental; they have an incidental control. There are a few things that are within the power, like the regulation of speed and—

The CHAIRMAN. And stops?

Mr. MOTE. And stops, but there is an appellate jurisdiction in our commission even in those cases.

The CHAIRMAN. Do the cities determine where new constructions shall be made?

Mr. MOTE. They have that power.

The CHAIRMAN. With the right of appeal to your commission?

Mr. MOTE. With the right of appeal.

The CHAIRMAN. Has that right of appeal been exercised in any case?

Mr. MOTE. Yes.

The CHAIRMAN. How many cases?

Mr. MOTE. Two or three.

The CHAIRMAN. Have you found that that plan creates any real conflict between the cities and the State?

Mr. MOTE. I do not think so. I think it works pretty well. We have——

The CHAIRMAN. Do you believe——

Mr. MOTE. May I just add, Mr. Chairman, we have not had an opportunity to try that out for the reason that, just emerging as we are from the war period, at a time when all kind of construction was taboo, we have not exercised our power, and the cities have been for the most part reasonable with the companies.

The CHAIRMAN. Do you believe that regulation would be upon a more satisfactory basis if the State had absolute power over the service as well as the rates and the location of new lines, leaving nothing for the city to do?

Mr. MOTE. No; I would prefer to vest the power to order extensions in municipalities with appeal to the public-service commission. That is what I would prefer.

The CHAIRMAN. Should the municipalities have anything to do with rates?

Mr. MOTE. Absolutely none.

The CHAIRMAN. Or with service?

Mr. MOTE. No. The functions can not be divided with respect to service.

The CHAIRMAN. In all cases I understand that you value the properties before you increase the rates?

Mr. MOTE. Yes.

The CHAIRMAN. How long, generally speaking, does it take you to complete a valuation?

Mr. MOTE. Well, of course, in the Indianapolis Street Railway case it took about three months, but that case was in court. That was the case that I made the reservation with respect to, on account of our jurisdiction being involved there. Ordinarily we would make a tentative valuation of a property; we would be able to make it within two weeks after the filing of an inventory.

The CHAIRMAN. In those valuation proceedings, do you find a sharp difference between the estimates of your engineers and those of the companies?

Mr. MOTE. In many cases, yes; because in many cases they have sought to reproduce the property on a basis of present prices or prices over an average period of, say five years, including the high war prices.

The CHAIRMAN. Have the companies appealed from any of the valuations made by your commission?

Mr. MOTE. No.

The CHAIRMAN. You stated that as far as Indiana was concerned you did not think the work of this commission was necessary.

Mr. MOTE. Yes.

The CHAIRMAN. That does not mean to say that Indiana is not willing to cooperate with this commission in every way possible to work out any improvement?

Mr. MOTE. We are here, Mr. Chairman.

The CHAIRMAN. I am very glad you are here.

Mr. MOTE. Thank you, sir.

Commissioner SWEET. When was your State commission organized?

Mr. MOTE. 1913, May 1.

Commissioner SWEET. How many members have you?

Mr. MOTE. Five.

Commissioner SWEET. How are they appointed?

Mr. MOTE. By the governor.

Commissioner SWEET. The first appointees are still serving, are they?

Mr. MOTE. None of the original appointees are now on the commission.

Commissioner SWEET. None of them?

Mr. MOTE. None of them.

Commissioner SWEET. The commission has charge of all public utilities as well as street railways, interurbans, etc.?

Mr. MOTE. Yes.

Commissioner SWEET. What was your business before you went on this commission?

Mr. MOTE. Magazine writer and newspaper man—editor of a foreign paper, Farmer.

Commissioner SWEET. Had you had experience in connection with public utilities?

Mr. MOTE. None whatever; that is, I mean except as a magazine writer.

Commissioner SWEET. But not as an operator?

Mr. MOTE. Not as an operator; none whatever.

Commissioner SWEET. Had you had statistical experience?

Mr. MOTE. Yes; a great deal of that.

Commissioner SWEET. Had you taken a college course involving that?

Mr. MOTE. Yes.

Commissioner SWEET. Where?

Mr. MOTE. Not in statistical work. I graduated at De Pauw University, taught school, and was superintendent of schools. I have had a lot of businesses.

Commissioner SWEET. What is your position? Are you chairman of the commission?

Mr. MOTE. Secretary of the commission.

Commissioner SWEET. Your interurbans, if I understand you correctly, make a slightly less charge than the steam railroads?

Mr. MOTE. One-fourth of 1 cent.

Commissioner SWEET. The steam railroads' charge being 3 cents per mile?

Mr. MOTE. Yes.

Commissioner SWEET. And the interurbans 2½ cents?

Mr. MOTE. Yes; that is right.

Commissioner SWEET. Do the interurbans in Indiana parallel the steam railroads to any extent?

Mr. MOTE. In many instances—practically in every instance they do.

Commissioner SWEET. And with that differential the interurbans are getting their full share of the business, are they?

Mr. MOTE. That is what we think.

Commissioner SWEET. Is that purely local business or to some extent a through business?

Mr. MOTE. Well, we have through service, for instance, from Indianapolis to Fort Wayne. The electric service is more popular than the steam service. That is a distance of, oh, possibly 90 or 100 miles, I should say.

Commissioner SWEET. Do they make as good time?

Mr. MOTE. Yes; they do. We have the roadbed; the Indiana roadbeds are pretty good. They do make pretty good time; all the interurbans do that.

Commissioner SWEET. The interurban service is based upon a rate per mile and consequently differs in that respect from the street railways in the cities?

Mr. MOTE. Yes.

Commissioner SWEET. In the cities you have the straight 5-cent fare, as I understand it, within the city limits?

Mr. MOTE. Yes.

Commissioner SWEET. Without regard to the distance?

Mr. MOTE. Yes. If I might, I would like to interpose something just at that point that I did not discuss here.

Commissioner SWEET. Yes.

Mr. MOTE. We have discussed frankly what shall be our policy if further increases are necessary—and I do not want to speak for the commission in this respect—but there is a feeling at least among some of the members of the commission that we will prefer to go to a 6-cent fare rather than to an extra charge for transfers. We have not crossed that bridge yet, because we have not come to it, but we have talked about it.

Commissioner SWEET. All the transfers are without charge now?

Mr. MOTE. Absolutely.

Commissioner SWEET. Have you considered the possibility of going to the zone plan?

Mr. MOTE. Yes; we have denied petitions to do that.

Commissioner SWEET. You have what?

Mr. MOTE. We have denied a petition asking for that.

Commissioner SWEET. What is your objection to the zone plan?

Mr. MOTE. Because of the tendency to cause congestion—the social objections to it. We do not have the same problems, I frankly recognize, like a city like New York or Boston or the larger cities. There I would think the zoning system would be inescapable, but

I do not think that is true of our State; I do not think it applies to any of our cities.

Commissioner SWEET. What is the population of Indianapolis?

Mr. MOTE. Three hundred thousand.

Commissioner SWEET. How many square miles does it cover, about?

Mr. MOTE. Well, roughly, 100.

Commissioner SWEET. Were it not for the objection that you speak of, the tendency to congestion, would you favor the zone system in Indianapolis?

Mr. MOTE. There is one other reason, and that is that people have built their homes in the suburbs upon the theory that they are going to be able to ride downtown as cheaply by living in the suburbs as if they lived down at Tenth Street or Eleventh Street or down near town, and I should think the moral effects of a change to the zone system would be bad in our city.

Mr. WARREN. These suburbs you speak of are within the city limits?

Mr. MOTE. Oh, just outlying.

Mr. WARREN. They are within this 100 square miles?

Mr. MOTE. Yes.

Commissioner SWEET. But they are served by the same system?

Mr. MOTE. Yes.

Commissioner SWEET. You do not think it would be a square deal to require those people to pay a slightly increased fare under the zone system?

Mr. MOTE. I think not. But the principal objection I have to it would be the future tendency to encourage congestion.

Commissioner SWEET. So that you are looking at that from the standpoint of general public policy rather than that of the interest of the street-railroad companies?

Mr. MOTE. Well, if I understand the attitude of the street-railroad companies of our State, it is this, that they are not particularly caring how we produce additional revenue for them or what means we devise to produce it, if they get it, if it is necessary for them to have it. Now, I know some of the operators have told me individually, that if we have to meet that proposition, they shall not say to us that they prefer this to that.

Commissioner GADSDEN. Suppose you were faced with an antagonism between the interests of the public and the railway on that zone system, what is the commission going to do?

Mr. MOTE. I beg pardon?

Commissioner GADSDEN. Suppose you are faced with the contingency that the interests of the public and the railway are opposed to each other on the zone system; suppose it became manifest that the solution of the problem in a given case so far as the investment is concerned is the zone system.

Mr. MOTE. And the interests of the public are otherwise?

Commissioner GADSDEN. Well, if you think they are, what are you going to do?

Mr. MOTE. I can only answer it by saying that my own personal opinion is that I would have to be shown that that is true.

Commissioner GADSDEN. But suppose it is; would the public make up the difference to the railway? That is what I am coming to.

Mr. MOTE. Absolutely, they would have to.

Commissioner GADSDEN. In some other way?

Mr. MOTE. In some other way, absolutely; no doubt about that.

Commissioner GADSDEN. That is what I was referring to.

Mr. MOTE. Yes.

Mr. WARREN. Your wage rate, I understand, is still below the War Labor Board?

Mr. MOTE. That is what I have just said.

Mr. WARREN. And you have noticed the increase in other cities—85 cents in Chicago, 65 in Boston, and 56 in Providence, and 57 in Worcester and Springfield, etc.

Mr. MOTE. Yes; I have noticed it with apprehension.

Mr. WARREN. I have made a computation bearing on that, and I wondered how it would affect your rates in Indianapolis. In 1917, the wages per passenger figured on the census returns for salaries and wages of that year amounted to 2.36 cents. If those wages had been on the 60-cent rate, which seems to be indicated by the recent action in these various cities, because Boston was an arbitration, Springfield and Worcester had 57 cents without arbitration; Detroit, Cleveland, Chicago, and Providence were all after a strike and, I think, following the strike Providence was an arbitration; was it not, Mr. Clark?

Mr. CLARK. No.

Mr. WARREN. But it was after the strike. Assume that the wages are going up to 60 cents; the cost per passenger, instead of being 2.36 cents as in 1917, would have been 4.5 cents, the 1918 figures with a 34-cent maximum rate in the early part of 1919 figured 2.82 cents, at the 60-cent rate applied to that same labor pay roll in 1918, the cost of wages per passenger would have been 4.98 cents.

Mr. MOTE. On what basis was that?

Mr. WARREN. That is on the 60-cent rate.

Mr. MOTE. I thought you said 4.5 cents.

Mr. WARREN. That was 1917.

Mr. MOTE. I understood you to say the 1917 basis was 2.36 cents.

Mr. WARREN. 2.36 cents in 1917, and in 1918, 2.82 cents.

Mr. MOTE. That was the 34-cent basis?

Mr. WARREN. The 1917 basis was 31½ cents.

Mr. MOTE. I have not any doubt about the——.

Mr. WARREN. Now, applying that situation—of course, I can not vouch for the exact accuracy of those; they are based on those figures and involve very large amounts in the census figures, but I think they are approximately correct, because I ascertained on the Boston Elevated, in Boston, in December, 1917, the cost per passenger then on a 5-cent fare was 2.20 cents. The public trustees who were in control and operating that road reported in May of this year that the pay roll called for 4.39 cents for each revenue passenger, almost exactly double, you see, what it was as recently as December, 1917. Now, suppose you were confronted with that situation in Indianapolis, following up Mr. Gadsden's question, would it not be necessary to go to a rate not only higher than 5 cents, but very much higher than 5 cents, if you were going to have a flat rate?

Mr. MOTE. Undoubtedly.

Mr. WARREN. And the alternative then would be to produce just the situation he questioned you about and pointed out to you—an apparent antagonism between the advantage to the city and the revenue necessity to the company; and would not the only solution from the revenue necessity of the company be some sort of a zone system?

Mr. MOTE. I should think so.

Mr. WARREN. You think that road would lose too much short-haul passenger business if you put in a flat rate to meet such a labor situation as seems to be confronting the roads?

Mr. MOTE. I think you are quite right about it.

Mr. FOX. Why not give the decrease in passengers in Boston—

Commissioner SWEET. I had not quite finished. The conditions you have described in Indiana—

The CHAIRMAN. I think for the purpose of the record I would like to state that it is better not to have any cross-questioning among the parties interested in the case. Anything that is said ought to go in the record in the regular way.

Mr. FOX. I apologize, but I wanted to get Mr. Warren to state the reduction of passengers in Boston, which was tremendous on the increased fares.

Commissioner SWEET. Indiana companies differ in a number of respects from most of the other States, both in regard to expenditures and cost of operation, and also apparently due to the attitude of the people toward the street railways. If I understand you correctly, the power used by street-railroad companies in Indiana costs less than throughout most parts of the country by reason of cheaper coal; is that true?

Mr. MOTE. I imagine that is true. I do not think there is any doubt about that.

Commissioner SWEET. On the other side of the account, or on the labor side, wages are less than generally prevail throughout the country.

Mr. MOTE. Possibly.

Commissioner SWEET. I do not think you need to give any explanation with regard to the cost of coal except the proximity of the coal mines. I suppose that has a great deal to do with it, and the fact that Indiana produces a large amount of coal that is suitable for that purpose.

Mr. MOTE. Well, I should not think that that would be nearly as great a factor as it might first appear to be, for the reason that the minimum freight rates on coal are, as you may already know, very high, and really our own communities—our own municipalities—or, rather, the companies operating throughout the State, do not get the advantage from the proximity to coal mines that they might be expected to get, because of the high minimum rates on coal. We used to have, of course, low rates on coal, based somewhat upon the miles of haul, but the minimums have been increased to such an extent that that advantage has been lost in a large measure. Of course, we are anticipating, perhaps, further increases. I have no doubt, though, that we do derive an advantage, but I think it might be overestimated. I would be very glad to prepare for the commission an

analysis of our coal costs if it would be helpful to you in any way, or have it done.

The CHAIRMAN. Will you please send it to us?

Mr. MOTE. I will be very glad to.

Commissioner SWEET. With regard to wages, how do you account for the fact that the street-railway companies in Indiana are paying less wages than in most other parts of the country?

Mr. MOTE. Well, one reason is they are not organized.

Commissioner SWEET. They are not organized?

Mr. MOTE. Our street railway workers are not well organized. They have an organization in Indianapolis, but the organization has never been officially recognized by the company. I should think that would be one practical reason. And then I think the cost of living is lower in Indianapolis.

Commissioner SWEET. What are you paying your motormen and conductors?

Mr. MOTE. I think the minimum is 39 cents now. There may be some one who can answer that here. They were increased either $1\frac{1}{2}$ or $1\frac{1}{4}$ cents, but I think the minimum is 39 cents now.

Commissioner SWEET. The minimum?

Mr. MOTE. Yes; and it runs 4 cents higher than that.

Commissioner SWEET. You think between 39 and 43 cents?

Mr. MOTE. And 43 cents—I think that is the rate.

Commissioner SWEET. What are the hours?

Mr. MOTE. They vary, of course. We have had to deal with that problem, not ourselves, but it was dealt with by our commission some three or four years ago in arbitration proceedings, and the hours were shown in many instances to run 10 and 12, and not infrequently does a man serve 10 and 12 hours; but, generally speaking, the service is 8 to 9 hours. Nine hours, I should think, would be the average.

Commissioner SWEET. Have you given any special attention to the Cleveland street-car system?

Mr. MOTE. Well, not recently. At one time I did. I made a study of it, but that has been a number of years ago and I have forgotten most of what I knew about it at that time.

Commissioner SWEET. Are you familiar with the situation in Cincinnati?

Mr. MOTE. I am not familiar with the present situation there.

Commissioner SWEET. Secretary Baker said yesterday that he did not believe in the State-commission plan, for the reason that he thought it would be resented to a considerable extent by the people in the cities and that a proper degree of education on the part of the people involved in the campaign that Tom Johnson carried on in Cleveland was quite essential to the acceptance of a proper plan and of a proper cooperation between the city and the company. I take it from what you said you do not agree with that statement.

Mr. MOTE. I do not agree with it so far as our State is concerned. If I lived in a State where there were a great many large cities, I think perhaps I would have a different opinion.

Commissioner SWEET. Well, Indianapolis is a pretty large city.

Mr. MOTE. Yes.

Commissioner SWEET. You have not found a condition of that kind in Indianapolis?

Mr. MOTE. Our own system works very well.

Commissioner SWEET. I think that is all.

Mr. WARREN. This question may have been asked you, but my attention was diverted for a moment: Does the public generally accept with satisfaction the decisions of the commission?

Mr. MOTE. I am very glad to answer that question. I have already called your attention to the fact that there were, I think, three bills introduced in the last legislature to abolish our commission. There was not anything substantial behind any of them, and there was not any substantial support behind any of them, and they were all introduced in the lower house, our assembly; none of them ever got to the senate. We have, so far as we have been able, tried to deal openly and frankly with the public in our State. By that I mean that we have given a great deal of publicity to the things that we have done and have gone to considerable pains to tell the public why we did them. We have in no cases taken snap judgment, but we have acted carefully and methodically and along well-recognized principles of rate making. I have already said that we have increased no rates without tentative valuations, and the feeling has, I think, come to be pretty general in Indiana that our commission is careful and I believe that the people believe in us, and I believe that they are willing to accept our judgment with respect to a given situation.

Mr. WARREN. And, as you said, you have been able to make these tentative valuations within a couple of weeks and render decisions within a month on the application?

Mr. MOTE. Yes.

Mr. WARREN. And you have endeavored to meet the exigencies for additional revenue in such a way that you consider the administration by the State commission is virtually the operation of a service-at-cost proposition?

Mr. MOTE. Precisely.

Mr. WARREN. Are transfers largely used in Indianapolis?

Mr. MOTE. Yes.

Mr. WARREN. I do not suppose you know what proportion.

Mr. MOTE. I can not tell you offhand what they are. We made a very careful check. We had in effect during a trial period a selection of 1 cent for the use of a transfer and 1 cent being refunded upon presentation of the transfer. We did that in order to avoid the abuse of transfers, but it did not work very well. We did, however, get an actual check of the number of transfers over a given period, and that is readily available, but I have not it with me.

Mr. WARREN. That is the Cleveland situation of a 1-cent charge and a rebate, but that did not work in Indianapolis?

Mr. MOTE. It did not work very well.

Mr. WARREN. Why?

Mr. MOTE. The people did not like it.

Mr. WARREN. It involved paying a cent for a transfer and getting it back when they returned it?

Mr. MOTE. Yes.

Mr. WARREN. How about jitney competition in Indianapolis? Is that subject to your regulation?

Mr. MOTE. No; we have nothing to do with it.

Mr. WARREN. Is it subject to anybody's regulation?

Mr. MOTE. Yes; subject to regulation by the city. We have no State law with respect to jitneys, but the general powers of our cities and towns act empower the cities to act, I think, without doubt with respect to jitneys.

Mr. WARREN. Have they acted to any great extent?

Mr. MOTE. Oh, they have licensed them in a few cities, I think. I am not just certain whether they have or not. They are going to have to do it. I have had some conversations lately with mayors and city attorneys in a number of municipalities where they have not acted, but say they are reaching a point where they will have to do so.

Mr. WARREN. Is that on the theory that if they are going to compete they ought to be subject to some similar requirements in the interests of the city?

Mr. MOTE. Well, it is on the theory that they are more or less nuisances in some places. In some places they are operating to such an extent that the life of the public is involved.

Mr. WARREN. The use of the streets?

Mr. MOTE. They are operated carelessly in some cases. That is one of the concerns which the city has. The other concern is that it is unfair competition and that they have got to regulate it in order to save what is a very vital function of their city life—that is, the street railway.

Mr. WARREN. Would you care to express an opinion as to whether the motor bus or jitney would be an adequate substitute for the street-car service?

Mr. MOTE. Yes, I would. I do not think it would.

Mr. WARREN. You do not think it would?

Mr. MOTE. Not at the present time. I do not know what they may develop in the future.

Mr. WARREN. But at the present time it would not be?

Mr. MOTE. Certainly not.

Mr. WARREN. Therefore if the street-railway service is to be maintained at a proper degree of efficiency it ought not to be cut into by the competition of something which can not take its place?

Mr. MOTE. Absolutely.

Mr. WARREN. You think that is the feeling of these municipal authorities who have conferred with the commission?

Mr. MOTE. Yes; I think so.

Mr. WARREN. That is all.

The CHAIRMAN. Looking at the subject of regulations in its broad aspect, Mr. Mote, which field is the greatest use to the public—regulation of rates or of service?

Mr. MOTE. I think they are about equally important; one must go with the other. We—

Mr. WARREN. You can not get service without the rates?

Mr. MOTE. Absolutely not. And, of course, we have been somewhat lax in our requirements—that is, measured by normal times—but we are looking forward to the time when we can require and establish and enforce rigid standards of the service. Now, we are requiring the Indianapolis Street Railway Co. to make some extensions; that is part of the reorganization—requiring them to extend

numerous lines into outlying districts that ought to be served which have no service now. We required them to put on pay-as-you-enter cars; we required them to buy additional cars and put them into service on the lines where the traffic was congested. We have gone pretty far in that respect. We have absolutely full authority over the service. It goes to the point of being able to require them to do anything which is reasonable.

(Witness excused.)

The CHAIRMAN. Who is the next witness, Mr. Ogburn?

Mr. OGBURN. The next witness is Mr. Richard T. Higgins, chairman of the Public Utilities Commission of the State of Connecticut.

STATEMENT OF RICHARD T. HIGGINS.

The CHAIRMAN. You may state your name and position, please.

Mr. HIGGINS. Richard T. Higgins, chairman of the Public Utilities Commission of the State of Connecticut.

The CHAIRMAN. Just proceed in your own way, Mr. Higgins.

Mr. HIGGINS. The street-railway situation in Connecticut is not materially different from that obtaining in most other States.

There are in Connecticut 10 operating companies operating 828.7 miles of single track, two of these companies operating more than seven-eighths of the total mileage.

The Connecticut Co. is the principal street railway in Connecticut, operating over owned and leased lines 503.8 miles of single track through more than 50 different cities and towns. All of its properties are located in Connecticut and all of its business is intrastate. Its rate of fare is and, since October, 1917, has been 6 cents. Although it has been able to meet its operating expenses, rentals, and overhead, and fixed charges, it has paid no dividends on the capital invested for the past two years, and with the increase in wages for this year the indications are that it will show a large deficit.

The next largest company is the Shore Line Electric Railway, operating 212.6 miles over owned and leased lines in 35 different cities and towns in Connecticut and 16.7 miles in the State of Rhode Island. Its business is largely intrastate. Its rates of fare are 5 cents in the cities of New London and Norwich, due to State franchise requirements, and on a distance basis of substantially 2½ cents a mile over its properties outside of New London and Norwich. During the past year it has failed to earn its operating expenses and rentals. Receivership or abandonment seems imminent.

The Hartford & Springfield Street Railway Co. operates 44.9 miles in 12 different cities and towns in the State. This company is now in the hands of a receiver.

The Danbury & Bethel Street Railway Co. operates 20.2 miles of single track, all within the State, and is now in the hands of a receiver.

A special commission appointed by the Connecticut Legislature of 1919, after an exhaustive hearing, summarized the street-railway situation in Connecticut as follows: "With the exception of 12.8 miles of street railway in the State out of a total of 828 miles, all of the lines are either in the hands of receivers or are insolvent and must have their service to the public either partially or completely discontinued and portions of their lines abandoned and sold for

junk, unless substantial temporary relief is furnished through adequate legislation by the general assembly of 1919."

The CHAIRMAN. What is the date of that report?

Mr. HIGGINS. The report was made in April, 1919.

If proper action is not taken by this assembly, it will be too late to remedy the neglect in 1921 and an irreparable injury will be done to the vital transportation arteries of the State, causing suffering, personal loss, depreciation, and discontent to a large and most valued portion of the population of the State who have as a result of street-railway facilities purchased, built, or rented their homes along the street-railway lines or near them and are dependent upon these lines for getting to and from their daily work, obtaining provisions and supplies, as well as being, in many cases, investors in the securities of the street-railway lines passing their properties.

I have mentioned the number of cities and towns through which the principal companies operate, indicating the difficulty if not impracticability of local or municipal ownership or control.

During the era of street-railway development many lines were extended into rural sections. These sections developed because of the extensions and became dependent upon the trolley for transportation, but the volume of traffic now received on many of these lines is not sufficient to pay operating expenses.

The increasing use of privately owned automobiles, as well as the public-service car or jitney, has materially affected street-railway revenues, the privately owned automobile affecting particularly the rural or suburban sections. Jitneys operate in populous centers, getting a large percentage of the profitable short-haul traffic. Public-service cars or jitneys are unregulated in Connecticut as to rates, routes, schedules, service, etc., and they pay no State or street tax other than the ordinary license and the local-property tax.

I think it is universally conceded that the situation which most all of the American street railways are in to-day is exceedingly serious, and unless some immediate and substantial relief is afforded, many of the companies will fail, street-railway business will be suspended, and the public will suffer the loss of a utility which affords a necessary means of transportation.

It is not so difficult to diagnose the ills as it is to prescribe the remedy. I presume your honorable commission has listened to many suggested remedies, and I can not expect to add any new thought; but to my mind the relief must come primarily from the States and the municipalities where the different companies operate, and must be governed somewhat by local conditions, but should involve a material increase in rates, a reduction or suspension of taxes, substantial relief from State and municipal obligations pertaining to street pavements, bridges, etc., a liberal policy of regulation, and a similar policy of public regulation and taxation over competing transportation agencies such as public-service automobiles or jitneys.

In the solution I would avoid, if possible, public or government ownership or control, or any policy which takes away from the companies the initiative and incentive which have been the great impelling factors in the wonderful growth and development of our country.

Street railways afford the principal medium of the industrial short-haul traffic. The trolley car is the poor man's means of trans-

portation, and its only revenues are provided by the car riders, who ride as a matter of public necessity, not as a matter of personal pleasure. Under present conditions there is just as much if not more reason for relieving the trolley companies from the burden of public taxation as there is, for example, to exempt from taxation large private and heavily endowed colleges and other institutions of learning.

Franchises imposing rate limitations should be amended, eliminating the rate restrictions.

Let me add right here that I believe that franchises should be the indeterminate franchise. That is the case of all franchises of street railways in Connecticut.

Regulating bodies should be prompt in rendering rate decisions. The spirit of cooperation between utility companies and the public should be strongly emphasized, as it is, to my mind, one of the most important factors in bringing about a healthy condition of the street-railway situation, and I feel sure that the report of your commission will have a large influence in this respect.

The nickel unit of fares appears to be popular with the riding public, and if this unit could be retained—shortening the zone and giving less service for the nickel—it might be the best way of increasing revenues, but most cities are included within one zone, and it would be difficult to subdivide a city area into two or more zones. In the absence of such reasoning, a flat zone increase or a rate based upon distance would become necessary.

If public necessity requires a continuation of street-railway transportation—and I believe it does—the business of such transportation, relieved of unnecessary burdens, should be self-supporting, and the companies should be legally protected against unfair and destructive competition.

I want to say, regarding rates in Connecticut, that the system in Connecticut is that the company has the initial right to establish its own rates of fare. It has a right to make a rate and to change any company-made rate.

The commission has jurisdiction over rates upon a written petition and after hearing had.

Any commission-made rate can not be changed by the company without the consent or approval of the commission.

Practically of the street-railway rates in Connecticut are company-made rates.

Something has been said about the question of service at cost. Theoretically that is sound, and is the policy that our commission has tried to follow; but practically there are certain obstacles to its working out as an absolute theory. Street railways are critically ill, and they can not be revived and put upon a sound basis overnight. If this service-at-cost policy were to be adopted, in my opinion, and a rate established high enough to meet the operating expenses, fixed charges and overhead charges, and pay a fair dividend upon the capital or the value of the property, as the case may be, the rates of fare would necessarily be so high as to be prohibitive where you have got unrestricted and unregulated competing transportation agencies.

I believe that the States that have imposed burdens upon street-railway companies in the nature of street paving, heavy expense of

maintaining highway bridges, and so on should reduce or repeal those impositions if we are going to save our street railways.

I think it would be difficult for any man to prophesy what effect the future will have as between the automobile and the street railway; but we know to-day that street railways are absolutely essential for the handling of the traffic in our populous cities, and during the transition period at least those companies and the public should be protected and safeguarded in their rights until such time as the change comes about.

Further than that, if we are in a transition period, where the policy of transportation is changing from the street-railway car to the rubber-tired vehicle, I believe that the street-railway company's franchises should be so amended as to permit them to make a change in keeping with the public demand and to protect the millions of dollars of investments now in street-railway properties owned by millions of people all over our country.

I shall be very glad to answer any questions that any of the members of the commission may have to ask me.

The CHAIRMAN. How many of the 10 operating companies in Connecticut are in the hands of a receiver?

Mr. HIGGINS. Two at the present time.

The CHAIRMAN. When did they go into the hands of a receiver?

Mr. HIGGINS. In the latter part of 1918.

The CHAIRMAN. Had they applied to your commission for an increase of rates prior to that time?

Mr. HIGGINS. They had not, because they had the right to increase their rates, and they did increase their rates somewhat.

The CHAIRMAN. And still they were not permitted to meet their fixed charges and operating expenses?

Mr. HIGGINS. No, sir.

The CHAIRMAN. Has your commission valued the properties of these companies, or any of them?

Mr. HIGGINS. Not by a careful valuation; no.

The CHAIRMAN. Is it your purpose to value these properties when rate increases are pending?

Mr. HIGGINS. When that question becomes a vital question. For instance, in 1917, the Connecticut Co. increased its rate to 6 cents. We had a petition from the patrons protesting against the increase. We had an exhaustive hearing, but the finding of facts was that the company was not paying any dividends, and it did not make very much difference what the valuation of the property was; and we did not make a physical valuation of the property at that time, but we permitted the company to maintain the 6-cent rate which it had established.

The CHAIRMAN. What rates are being charged by these two companies that went into the hands of a receiver?

Mr. HIGGINS. One company, the Danbury & Bethel Street Railway Co., had a 5-cent rate, with the exception of one line to a pleasure resort, which was a 10-cent rate. The Hartford & Springfield—I am sorry to say that I can not give you exactly what that was, because they made several charges; it went from a zone to a mileage rate; but substantially, at the time of the receivership it was 6 cents a zone. Since that time it has been raised.

The CHAIRMAN. Why did not the company you first mentioned as charging the 5-cent rate make a higher charge?

Mr. HIGGINS. That might be so with all companies where they have got the initial right to change a rate.

The CHAIRMAN. And this company had, you say?

Mr. HIGGINS. This company had the initial right; but opposed to that was very strong popular sentiment. In the pioneer days of street-railway operation, when the street-railway business was more or less profitable and the nickel was worth a good deal more than it is to-day, the spirit of greed or avarice, high financing, possibly of extension of unprofitable lines, crept into many companies.

The CHAIRMAN. Does that apply to this company?

Mr. HIGGINS. The question of extension of lines does not apply.

The CHAIRMAN. How about overcapitalization and high financing?

Mr. HIGGINS. There might have been some high financing.

The CHAIRMAN. How much in the case of this company?

Mr. HIGGINS. I do not know that I could answer you that, off-hand.

Mr. WARREN. That is the Hartford & Springfield road you are speaking about now?

Mr. HIGGINS. No; it is the Danbury & Bethel.

The CHAIRMAN. Then it appears that the Danbury Co. went into the hands of a receiver without exhausting its efforts to get a sufficient revenue by rate increase?

Mr. HIGGINS. Yes.

The CHAIRMAN. Why did it go into the hands of a receiver, then, without trying to work out its own salvation?

Mr. HIGGINS. Because the popular sentiment of the community would not permit the raising of rates.

The CHAIRMAN. But you say it had the right to initiate the rate?

Mr. HIGGINS. Yes.

The CHAIRMAN. The Connecticut Co. operates through 50 cities and towns?

Mr. HIGGINS. Yes.

The CHAIRMAN. And that is now charging a 6-cent rate?

Mr. HIGGINS. That is now charging a 6-cent rate.

The CHAIRMAN. Is that permitted by your commission?

Mr. HIGGINS. It was permitted; yes.

The CHAIRMAN. Is that property valued?

Mr. HIGGINS. Yes; in this hearing it was valued, but not a careful engineering valuation by our commission.

The CHAIRMAN. How does the valuation established in that hearing compare with its capitalization?

Mr. HIGGINS. Its capitalization is \$40,000,000, all of the stock owned by the New York, New Haven & Hartford Railroad Co. and now held by Federal trustees under an order of the Federal court. The value of the property, as shown by the engineer, checked up by Mr. George F. Swayne, of Massachusetts, showed the value of the property to be approximately \$47,000,000, as I now remember it, but substantially more than the value of the stock—that is, including the rolling stock used on leased lines.

The CHAIRMAN. Do you know how the value compares with the investment account of that company?

Mr. HIGGINS. I think the valuation is in excess.

The CHAIRMAN. Have the villages or cities any control over the rates of the company?

Mr. HIGGINS. They have not.

The CHAIRMAN. Or of the service?

Mr. HIGGINS. No; excepting in a limited sense, as to rates of speed, in certain cities, certain streets.

The CHAIRMAN. Then the real jurisdiction over rates and service rests with your commission?

Mr. HIGGINS. Yes.

The CHAIRMAN. Is that exercised very frequently?

Mr. HIGGINS. Yes; more especially as to service than as to rate.

The CHAIRMAN. Considering the local conditions in Connecticut, is it practicable to have purely municipal regulation of these utilities?

Mr. HIGGINS. My opinion is no.

The CHAIRMAN. Why?

Mr. HIGGINS. Because of the fact the communities are so interlocked and the business is so connected that a street railway must, of necessity, run between two and through two or more communities, and it would bring a dual regulation over the operation.

The CHAIRMAN. Are they so intimately associated that you must have the same rate charged in each of the villages and cities through which the Connecticut Co. operates?

Mr. HIGGINS. I think so.

The CHAIRMAN. What form of regulation will work out the best for the public and the utilities in that State?

Mr. HIGGINS. My opinion is State regulation.

The CHAIRMAN. Giving to the State complete control of rates as well as service and extensions?

Mr. HIGGINS. Yes.

The CHAIRMAN. Have you any control over capitalization?

Mr. HIGGINS. We have not.

The CHAIRMAN. Should you have?

Mr. HIGGINS. I think we should.

The CHAIRMAN. Has an effort been made to secure that control?

Mr. HIGGINS. At one time; yes. It failed at that time.

The CHAIRMAN. How long ago?

Mr. HIGGINS. That is four or five years ago; nothing recent.

The CHAIRMAN. Is there any sentiment for that sort of control now?

Mr. HIGGINS. I think so.

The CHAIRMAN. Could the cost-of-service plan be applied to the Connecticut Co., which operates through 50 cities and villages? You understand the cost of service, according to the Cleveland plan, means entering into a contract with each municipality, giving it the control over the rate, as well as over the service and accounting.

Mr. HIGGINS. It would be very complicated.

The CHAIRMAN. Could that sort of a plan be satisfactorily worked out by an agreement with the State commission, if the law permitted it?

Mr. HIGGINS. Allowing the valuation of the company's property in each locality and a rate for each locality or municipality, you mean?

The CHAIRMAN. Are you addressing that question to me?

Mr. HIGGINS. I say, you mean to have it so fixed by an agreement with the commission that the commission determines the value of the company's property in a municipality and the rate that the company should charge in that particular municipality?

The CHAIRMAN. Assume that to be the question; what is your answer?

Mr. HIGGINS. I think the difficulty would come, with us in Connecticut, in allocating the charges connected with the overhead charges and also of the rolling stock that operates in several of the communities.

The CHAIRMAN. The villages and cities in Connecticut are very close together; are they not?

Mr. HIGGINS. Yes; very.

The CHAIRMAN. Is the company's charge a mileage rate between these villages?

Mr. HIGGINS. The Connecticut Co. does not. The Shore Line Electric Railway Co. does at the present time.

The CHAIRMAN. When you travel from one city to the other, what is the charge on the Connecticut Co.?

Mr. HIGGINS. It is on the basis of 6 cents a zone. It may be one zone and it may be two or three.

The CHAIRMAN. I see. The whole system is on a zone basis?

Mr. HIGGINS. Yes.

The CHAIRMAN. Has there been any agitation in Connecticut for a different form of regulation?

Mr. HIGGINS. I think not. I will qualify that by saying that there has been some discussion in some of the municipalities, principally Bridgeport, of the question of taking over the street railways within the State, and operating them as a municipal plant.

The CHAIRMAN. Do you believe that the cities and villages should have more control over these utilities than they now possess?

Mr. HIGGINS. I believe that they should have control to the extent of regulating the issue of stocks and bonds, that we have not got in Connecticut.

The CHAIRMAN. You think the cities and villages should have that power?

Mr. HIGGINS. Oh! That the cities and villages should have that power? No; I do not.

The CHAIRMAN. Read the question, Mr. Reporter.

(The reporter repeated the question as above recorded.)

Mr. HIGGINS. I do not see any necessity for it.

The CHAIRMAN. Has the National War Labor Board increased the wages of companies in your State?

Mr. HIGGINS. Wages have been increased; whether as a result of that or otherwise, I am not prepared to say.

The CHAIRMAN. Have you had any strikes recently?

Mr. HIGGINS. We have; on the Shore Line Electric Railway Co. and as a result, during the past month, street railway service has been almost entirely suspended in eastern Connecticut.

The CHAIRMAN. Is that strike still in existence?

Mr. HIGGINS. To a certain extent. It is gradually working out, we think. Some cars are running now.

The CHAIRMAN. What is the cause of the strike?

Mr. HIGGINS. A request of increased wages.

The CHAIRMAN. What are they asking for?

Mr. HIGGINS. My recollection is, 60 or 62 cents; I am not sure as to that.

The CHAIRMAN. Have you made a calculation to determine what rate will have to be charged to meet that additional labor cost?

Mr. HIGGINS. I have not the figures.

The CHAIRMAN. What do the companies claim will be necessary?

Mr. HIGGINS. I could not tell you offhand, sir.

The CHAIRMAN. Are the companies unionized? Are the employees unionized in your State?

Mr. HIGGINS. They are.

The CHAIRMAN. What will be the effect upon the revenues of the companies in your State if you find it necessary to increase the fares above 6 cents?

Mr. HIGGINS. It would increase the revenues provided automobile competition was also regulated.

The CHAIRMAN. Do you mean the jitney competition?

Mr. HIGGINS. Yes.

The CHAIRMAN. Do you have any control over jitneys?

Mr. HIGGINS. None whatever.

The CHAIRMAN. And the municipalities, I understand, only have control to the extent of a license tax?

Mr. HIGGINS. Yes.

The CHAIRMAN. That is not ample protection?

Mr. HIGGINS. Nothing more than the ordinary police regulations.

The CHAIRMAN. In the absence of regulation of jitney competition, what will happen to the revenues of the company if you have to charge a 7-cent fare?

Mr. HIGGINS. I am not prepared to answer. I think it would increase the revenues.

The CHAIRMAN. You think it would still increase the revenues?

Mr. HIGGINS. Yes; I think so.

The CHAIRMAN. Would it likewise increase the jitney competition?

Mr. HIGGINS. I think it would. I might say this, in regard to jitney competition: The last legislature did make this concession regarding the jitney operators—that they were required to give a bond to answer questions of damages.

The CHAIRMAN. Is the competition between these two transportation companies keen?

Mr. HIGGINS. It is, decidedly.

The CHAIRMAN. Is the jitney business increasing or decreasing?

Mr. HIGGINS. Increasing.

The CHAIRMAN. Rapidly?

Mr. HIGGINS. It has in the past 18 months, and for the past six months possibly. The bond requirement will not take effect until next January, I believe.

The CHAIRMAN. What do you think will be the effect of the requirement of the bond upon the service of the companies?

Mr. HIGGINS. I think it will assist the companies, by eliminating a large number of the small-jitney competitors, the small cars.

The CHAIRMAN. Can you state the amount of the bond required?

Mr. HIGGINS. My recollection is that it is a \$5,000 minimum, and increasing in accordance with the seating capacity of the car.

The CHAIRMAN. Has Connecticut been affected by the withdrawal of a large number of its citizens during the war, who would ordinarily use the street car?

Mr. HIGGINS. It has.

The CHAIRMAN. They are now coming back?

Mr. HIGGINS. Yes.

The CHAIRMAN. Then you look for a larger passenger travel?

Mr. HIGGINS. I think so; yes.

The CHAIRMAN. Has that begun to be effective?

Mr. HIGGINS. The riding in 1919 over 1918 has materially increased; there is more riding in 1919 than there was in 1918.

The CHAIRMAN. Has your company addressed itself to the question of economies that might be made, rather than by increasing the charge?

Mr. HIGGINS. Somewhat.

The CHAIRMAN. What conclusion have you reached?

Mr. HIGGINS. The conclusion is rather indefinite. I believe that some system should be devised whereby the company receives all the fares that it is entitled to for the people who ride on the cars, which heretofore they have not been receiving.

The CHAIRMAN. I agree with you. What can you do to improve that situation?

Mr. HIGGINS. I think the pay-as-you-enter car helps considerably.

The CHAIRMAN. Have you ordered the use of such cars?

Mr. HIGGINS. We have not ordered any of them. Whenever the company gets new cars, they have got to be approved by our commission, and all of its new cars recently have been pay-as-you-enter cars.

The CHAIRMAN. Does that get the money?

Mr. HIGGINS. I think it does.

The CHAIRMAN. Have you suggested any other improvement in service or economies?

Mr. HIGGINS. There is the question of using the one-man car, which seems to be working out very satisfactorily in Connecticut in certain sections. They travel quicker, pick up quicker, and do not take so much power to operate.

The CHAIRMAN. How does the public regard those cars?

Mr. HIGGINS. Favorably, where operated. The city of Bridgeport, where they were first installed—first put in service—the mayor and other city officials speak very highly of them.

The CHAIRMAN. Have you ascertained how much saving there is in the use of these cars over the equipment which they already have?

Mr. HIGGINS. It is a technical question that I could not answer in detail.

The CHAIRMAN. Do you think it is a substantial saving?

Mr. HIGGINS. I do.

The CHAIRMAN. I have no further questions.

Mr. WARREN. Just one question: Has not the Connecticut Co. itself made pretty exhaustive studies and efforts to reduce the cost of operation and to introduce economies?

Mr. HIGGINS. It has.

Mr. WARREN. I remember, when I was fuel adviser, Mr. Storrs made very careful figures and showed very gratifying results in examining the use of fuel and getting better results.

Mr. HIGGINS. Yes.

Mr. WARREN. And that has been the policy of the company quite generally, has it not?

Mr. HIGGINS. I think so, without question.

Mr. WARREN. So that, as far as that company is concerned, it has probably introduced a good many economies?

Mr. HIGGINS. I think so.

Commissioner SWEET. Have you any criticism to make of the management of the companies of Connecticut generally?

Mr. HIGGINS. No; I have not.

Commissioner SWEET. You think they are favorably managed, with reference to economy?

Mr. HIGGINS. I think there is always room for improvement.

Commissioner SWEET. Oh, certainly.

Mr. HIGGINS. But comparing the cost of operation in proportion to the revenues, and comparing that with other companies, it would seem that the management of our Connecticut companies compares favorably with other companies.

The personnel of the management with whom I am acquainted I believe to be doing the best they can. I want to say for the utilities of Connecticut of all classes that there has been a cordial spirit of cooperation between the commission and the companies.

Commissioner SWEET. Is it your opinion that the prejudice which existed against public-service corporations has been wearing away the last year or two?

Mr. HIGGINS. It is rather difficult for the public to forget the sins of the past. When the stress of war time came on they resented, even then, what had occurred in the past. However, as the facts and the embarrassing conditions of the companies have become known to the public to-day, I think there is a very much better feeling toward the companies, and a feeling that the companies should have assistance and should get a fair deal.

Commissioner SWEET. You think the general public is coming to realize more fully its dependence upon the street-railway company for a service that is indispensable?

Mr. HIGGINS. I think they are. I think they are coming to realize their dependence upon utilities generally, and that it is really a partnership between the public and the companies.

Mr. WARREN. You spoke of Norwich and New London, in connection with the Shore Line Railway. Those are the largest places served by that line in Connecticut, are they not?

Mr. HIGGINS. They are.

Mr. WARREN. And you mentioned certain franchise restrictions under which they could charge only 5 cents?

Mr. HIGGINS. Yes.

Mr. WARREN. Nobody except the city, I suppose, can remedy that situation?

Mr. HIGGINS. Yes; it is a legislative matter. All our franchises in Connecticut are granted by the general assembly, and that was a restriction put in the original charter. I understand, however, that at the last session of the legislature steps were taken to amend that, and I believe that recently that has been amended, eliminating that restriction as to New London and Norwich.

Mr. WARREN. Unless that were done, your commission could not do it, because the company initiates the rate?

Mr. HIGGINS. We could not change a franchise right, excepting the legal question might be involved whether or not an administrative body representing the legislature could assume the right to change a rate established by the franchise.

Mr. WARREN. None of your franchises are local grants?

Mr. HIGGINS. None of them; no. All of our franchises are granted by the State and are indeterminate as to period of time.

Mr. WARREN. So that every charter is a special charter?

Mr. HIGGINS. Every charter is a special charter.

Mr. WARREN. As ours used to be in Massachusetts.

Mr. HIGGINS. I might say that the Connecticut Co. is a combination of many special charters.

Mr. WARREN. Are you familiar with the general service-at-cost act which was passed by the Massachusetts Legislature in 1918?

Mr. HIGGINS. I have read it; yes.

Mr. WARREN. That contemplated an automatic scale up and down, to be submitted by the company to the commission, and when approved by the commission, with or without changes, it was to become effective. I suppose if you could fix your zones in the Connecticut Co., for instance, which serves so many municipalities—if you could fix your zones at a satisfactory distance in each case, you could then, with the valuation of the system as a whole, apply that scale, making it apply to each one of the zones?

Mr. HIGGINS. Yes.

Mr. WARREN. And that would be about the only way you could do it; would it not?

Mr. HIGGINS. About the only way; yes.

Mr. WARREN. Thank you. That is all.

The CHAIRMAN. You stated that you were in favor of eliminating taxes and paving assessments, and the cost of building bridges. Is that correct?

Mr. HIGGINS. Yes; excepting as to the question of taxes. I should say I am in favor of the elimination of them at the present time.

The CHAIRMAN. That is what I was going to ask you.

Mr. HIGGINS. I think that should be temporary.

The CHAIRMAN. You favor that, not as a permanent proposition but simply as a temporary expedient?

Mr. HIGGINS. As a temporary expedient, so far as taxation is concerned.

The CHAIRMAN. Have you the power, under your law, to relieve the companies from that cost?

Mr. HIGGINS. We have not.

The CHAIRMAN. Has any effort been made to secure a law to give you that power?

Mr. HIGGINS. Yes; at the last session of the legislature.

The CHAIRMAN. What was the effect of that?

Mr. HIGGINS. Without success.

The CHAIRMAN. Thank you very much for your statement, Mr. Higgins.

(Witness excused.)

Mr. WARREN. Unless the commission asked Mr. Mote while I was not listening or attending to something else, I should like to ask him

what the policy of Indiana is, if it has any, regarding the one-man car. Did he testify as to that?

The CHAIRMAN. He did not.

Mr. WARREN. May I have him recalled for a moment on that?

The CHAIRMAN. Yes.

STATEMENT OF CARL H. MOTE—Resumed.

Mr. MOTE. We have adopted and approved the one-man car in some of the smaller cities in Indiana, and it has worked very well. There have been protests in a few cases from the local central labor unions against its adoption. That is true at Evansville. At Logansport and Anderson and a few other towns, however, we have had the one-man car, and it has worked very well in the smaller towns.

Mr. WARREN. And the public is satisfied?

Mr. MOTE. I think so; yes.

The CHAIRMAN. Has the only opposition come from the labor unions?

Mr. MOTE. With the exception of Evansville, I think so.

The CHAIRMAN. Are there any further questions?

Mr. WARREN. That is all I wanted to ask, Mr. Mote.

Mr. MOTE. I should like to add, inasmuch as I have been recalled for the moment, just one statement to what I have already made.

We found, by a survey made in Indianapolis, that the companies there were losing 13.8 per cent of their total revenue by failure to collect the fares.

Mr. WARREN. How much?

Mr. MOTE. 13.8 per cent of the total revenue. That revenue is now being collected.

Commissioner BEALL. Was that due to war conditions, the different class of labor that you had during the war conditions?

Mr. MOTE. Incidentally to that, but that was not the fundamental thing.

Commissioner GADSDEN. You mean knocking down?

Commissioner BEALL. You think that was a condition that had endured for a number of years?

Mr. MOTE. Yes.

Commissioner BEALL. I know a great many companies had that trouble during the war period, due to the different class of labor that they had to use. How do you account for it in that case? Did they have lower grade of labor than most other cities or was their system incorrect?

Mr. MOTE. Well, during the rush hours it was shown to be a physical impossibility for the conductor to collect the fares.

Commissioner BEALL. Have they corrected it? What did they do?

Mr. MOTE. By the installation of the pay-as-you-enter cars.

The CHAIRMAN. Has that increased the revenue?

Mr. MOTE. Absolutely. For instance, a 16 per cent increase in rate has given the company a 25 per cent increase in revenue.

Commissioner BEALL. Do you find they carry as many people as they did with the other type of car?

Mr. MOTE. I could not answer that question.

Commissioner BEALL. Have not a good many of the companies—not in the medium-sized cities, but in the larger cities, like Indian-

apolis—found that in some cases the pay-as-you-enter cars slowed up their traffic?

Mr. MOTE. That was the objection to introducing the one-man car. Frankly, I never had very much confidence in that.

Commissioner BEALL. I do not mean the one-man car—

Mr. MOTE. No; I did not mean the one-man car. I meant the pay-as-you-enter cars.

Commissioner BEALL. The pay-as-you-enter cars; yes.

Mr. MOTE. We did not feel that it would slow up traffic very much; and my own opinion is—I would not want to be held accountable for it as to the details, or an analysis, because we have made none—my opinion is that it has not slowed up traffic very much; and that is based on observation, the speed with which the cars move, and the time it takes the pay-as-you-enter car now to go from one point to another point, and the time it formerly took with the other type of car.

Another objection that the company raised to introducing the pay-as-you-enter car was the expense. They had the old-type car. We worked out a very simple modification, however, of their old-type car, which, I think, did not cost them to exceed \$50 or \$60 per car to convert their old-type cars into pay-as-you-enter cars. The gain has been tremendous, and I think the company itself would never go back to the old type of car now.

(Witness excused.)

Mr. OGBURN. We have received several requests to have this record show what the recent fare adjustment on the Public Service Railway Co. of New Jersey has been, in view of the fact that a good deal of significance is attached to that, and in view of the fact that two weeks ago Dr. Conway testified rather fully in regard to the hearings before the Public Service Commission of New Jersey. And the Public Service Commission of New Jersey has offered to have one of its representatives appear here the latter part of the week, if it is desired, to put in fuller testimony than can be stated in a nutshell now; and that is this: That after those prolonged hearings on the question of the fare, based upon a zone plan, the president of the company, Mr. McCarter, offered voluntarily, as I understand it, to put in an initial fare of 3 cents for the first zone; that is, each line is divided into mile zones, and for the first zone the fare would be 3 cents, and for each successive zone it would be 2 cents.

One of the main criticisms of the zone plan has been the difficulty of collecting the fares, and you might be interested in the plan adopted for the company there for that purpose. It is that the passenger boards the front of the car and there receives a coupon showing the number of the zone in which he boards the car. He then rides as long as he desires, and the exit is at the rear of the car, where he then hands to the conductor this coupon, which shows the number of the zone in which he entered the car; and the conductor then computes the number of zones through which he has ridden, and the passenger pays accordingly.

If the commission desires a fuller statement of that situation the Public Service Commission of New Jersey has volunteered to have one of their members appear here and give you that statement. You can decide that at your meeting.

The CHAIRMAN. Yes; we will decide that during the noon hour.

Mr. OGBURN. The next witness is Mr. F. F. Ingram, of Detroit. Mr. Ingram has had considerable experience as a citizen. He was connected with Mayor Pingree, of Detroit, a number of years ago, and was on the city electric-lighting commission and, I believe, he is the head of the city forum of Detroit.

The CHAIRMAN. We shall be glad to hear from Mr. Ingram.

STATEMENT OF MR. F. F. INGRAM.

The CHAIRMAN. Just proceed in your own way, Mr. Ingram.

Mr. INGRAM. I am a manufacturer by occupation, and my business is in Detroit, the firm being Frederick F. Ingram & Co.

I did not know until a few minutes ago, Mr. Chairman, about half an hour ago, when someone reached me on the telephone, that I was wanted by your commission. I am not a street-railway man, as I have explained, and my only viewpoint is that of an interested citizen, and I can speak from that viewpoint, but not with any authority from any other point of view.

The situation of Detroit in the street-railway matter is perhaps unique. We have, from the citizens' viewpoint, been suffering there for a long time from unsatisfactory arrangements for street-railway-transportation service.

In 1908 I was elected to the constitutional convention of Michigan, which adopted the present constitution, and the reason why I was sent was a desire on the part of the citizens of Detroit to get home rule and municipal ownership; and my predilections were that way; and, as a consequence, while not a person who was seeking office, or had ever sought it before, I was elected to the constitutional convention, and we secured home rule and municipal ownership in our present constitution.

Then we proceeded to vote upon the municipal ownership, and the proposition was adopted by the people by a vote of 80 to 20. That was, I think, in 1910, nine years ago; but we have not got municipal ownership, although we adopted it by that large majority.

The consummation of that desire was interrupted by negotiations between the city authorities and the street-railway authorities, and those negotiations are still proceeding.

We had a strike there a few weeks ago which perhaps will show the sentiment of the citizens regarding the service. The strike was universal; and a complete tie-up of the lines resulted. It lasted one week. And from my experience in getting the sense or the opinion of the public generally, I feel that it was a disappointment, perhaps, that was entertained by a majority of the workingmen, at least, that the strike was settled and the cars resumed. That seems rather a startling statement to make, because we are a large industrial city, and our industries are very much scattered, and nearly all of our factory hands must take the street-car to get to their work, and for a week we had no street-cars at all, with no other form of transportation by companies like the steam railways.

The first day of the strike, in my own factory there were a few of my employees that were late, but there was none late after the first day; and that is something that would be very rare to occur any time during the time the street railways were running. The way we overcame the difficulty was by the universal disposition shown by all the

manufacturers to employ temporary expedients to get our employees to work.

The CHAIRMAN. What did you do?

Mr. INGRAM. We used our automobiles and our trucks; and the employees looked upon it largely as a sort of a picnic, and they were pleased with the idea. We laid the city out into zones—I did, myself, even the first day—and they all got there on these vehicles, but of course, we did not have our mobilization complete. After that, however, I think that all of the shops were fairly well served. I do not know of any that were not what they considered well served.

Detroit perhaps is more fortunate than most cities in having so many gasoline machines on its streets. In any event, at the end of a week a settlement of the strike was effected, and the cars resumed, and there has been no further trouble of that nature; but it developed a thought amongst our citizens along the lines: "Are the street-cars as we have street-cars, with trolleys and with rails, necessary?"

I believe if the vote was put to the industrial classes of Detroit they would vote against having the street-cars, even without a solution, as there is no known solution to replace the street-car at the present time.

The CHAIRMAN. May I interrupt you just for a moment to ask you a question at this point?

Mr. INGRAM. Certainly. I shall be glad to answer anything that I can.

The CHAIRMAN. Do you suppose that the industrial element is influenced in that sentiment by reason of the fact that the employers hauled them to and from their factories without charge?

Mr. INGRAM. I was coming to that. Of course, that is not a fair example of what the conditions would be—the experience during that week; because it cost none of our employees anything. We were glad to do this, to keep our people going and to keep the business going.

Commissioner GADSDEN. It was good weather, too, was it not?

Mr. INGRAM. Yes; it was fine weather. That was a very fortunate circumstance. Every day was a fine day. In fact, it created a spirit amongst the employers and employees that was really beautiful, and most unexpected. Of course that was all done without price, and it was looked upon largely as a picnic by the employees.

Now, prompted by your question: We have, as you all know, the Ford industry in Detroit, and Mr. Sorenson, one of Mr. Ford's expert mechanics, some time preceding the strike, had had considerable to say in the newspapers regarding the gasoline machine to replace the street-car. He had made positive statements in that regard, and of course it is an everpresent problem—the street-car problem there; it is discussed all the time. He had made the statement, and repeated it several times, with the whip of criticism, that gasoline machines—rubber-tired machines—could be installed in Detroit and could perform this service better than the street-cars, and at no greater cost to the passengers.

That probably reconciled the people to the strike, and also prompted the disappointment that they felt at the strike being settled, because it was a disappointment to many of the employees, as they took pains to express themselves. They were sorry the cars ever ran. I do not think the employers were disappointed at all. They were eager to have the cars run again, because it was a matter of expense to them

during the strike. But the people of Detroit have lost faith in private corporations running street-cars. This may be owing as much to the fault of the city administration as to the street-car corporation that handles the traffic in our city. I do not want to express an opinion upon that; but we have cultivated a municipal ownership sentiment there, beginning with Mayor Pingree, as you know; and the street-car people were giving us that traffic at eight tickets for a quarter during the workingmen's hours, which were liberal hours, enabling them to get to work on that low fare; and on one of the lines, the building of which was induced by the then Mayor Pingree, the eight-for-a-quarter tickets lasted until eight o'clock at night, beginning at five o'clock in the morning; and then it was six for a quarter. So we were accustomed to cheap fares. Then, this municipal ownership having been adopted by such an enormous majority, and its realization being delayed by the public thinking by more or less collusion or incapacity on the part of our government officials, and then the street-railway company abrogating a day-to-day agreement which they had entered into to tide over the situation until municipal ownership was adopted, the people have lost faith in private corporations. They do not believe it is possible—and my opinion is that it is their opinion that they do not conceive it to be possible—for a private corporation, whose main purpose is to make profit, to give a satisfactory service in Detroit. That explains, I presume, in large measure, why our strike produced so little trouble. There was absolutely no trouble at all, no riots, no disturbances such as have marked previous strikes in Detroit, and which generally come more or less in all strikes.

I feel that I am intruding upon you, because I am not an expert, and I do not want to advance any more talk here, but I shall be glad to answer any questions that any of the members of the commission may have to ask me.

The CHAIRMAN. You have given us a very interesting narrative.

Mr. INGRAM. I would like to say that I was a member of the public lighting commission for six years, and was selected as president twice, and my facilities for obtaining a survey of the public mind in these matters has been good. I am a director of a public forum, and that brings together the people who are the thinking people of the town, and they discuss these matters very largely, and that is the place for the exchange of public views, which inspires me with confidence that perhaps I am in a position to know what those views are.

Commissioner BEALL. You have had, as I take it, from your testimony, comparatively low fares in Detroit, have you not?

Mr. INGRAM. I understand they are about as low as they are anywhere in the country.

Commissioner BEALL. Has not that been due to rather unusual circumstances, in this respect: Have not the citizens of Detroit had this very great advantage, that they really have been getting the service at less than cost to the company, and that the only reason that the Detroit company has been able to live is owing to a very unusual thing, and that is that the outside lines, the interurban lines which they own, go to very populous districts and, unlike most similar cases, have been very profitable, and that they have used the net earnings of those outside lines to offset their lines in the city?

Mr. INGRAM. The people of Detroit—the man in the street, that is—one of his charges against the street railway in Detroit is that they are supporting the interurban lines from the revenue of the city lines.

Commissioner BEALL. But the fact is really just the opposite, is it not?

Mr. INGRAM. It may be.

Commissioner BEALL. But is not that so? Does not their published statement of earnings show that?

Mr. INGRAM. I do not think so.

Commissioner BEALL. I understood that they do. I am quite sure they do.

Mr. INGRAM. There are certain features in connection with that that our Detroit people consider grievances. For instance, they have turned our streets into switches for freight. They do a large express and freight business on the interurban lines, and the city has been trying to exact from them certain sums for that, and they have at times failed to collect it. But I do not think the city would fail to collect it if they felt they had public opinion behind them. There is a public opinion there that perhaps would not back the administration in being too arbitrary in that direction; but there is a big service that the city of Detroit is affording those interurbans, by bringing those cars down to the city and giving them the transfer privileges, and all that, that the city under municipal ownership would treat either as a public benefit, without charge, or for which they could exact a charge if they owned the inside tracks.

Commissioner BEALL. As a matter of fact, as a manufacturer and a business man there, it may be that perhaps they do not serve your particular plant as much as some others; but isn't that switching and freight and express service of great benefit to the people of Detroit? Wouldn't they far rather have it than not to have it?

Mr. INGRAM. It is a convenience.

Commissioner BEALL. Is it not a very great convenience? Don't they get the regular freight and express much cheaper, more conveniently and quickly than if they did not have that service?

Mr. INGRAM. In some instances. But there is another side to that story.

Commissioner BEALL. We are just asking for information, of course.

Mr. INGRAM. I understand that. I understand that your question is not partisan. I do not consider it so. I was just going to take up, for a moment, the possible implication of the question. We had express rates of 15 cents—I do not know whether you are familiar with the surroundings there, or not—to Wyandotte and Monroe and near-by towns within 12 to 20 miles; and that was a competitive rate against the express. They raised that rate to 25 cents. I do not think that we consider that we are saving very much in rates by the express carried by the interurbans, but it is a convenience. It serves considerable territory that the steam lines do not serve at all. Then some of us have a habit of, without consulting economies, sending by the interurbans. They are performing a legitimate service and a service that it would be a great hardship to Detroit to have done away with. So far as rates are concerned, however, I think there is an inclination to maintain a rate that they can get, and that they

charge just as much as the others charge under the competitive circumstances. But they do not charge more, I don't think, where there is no competition from the others.

We are still considering a street-railway problem there with very serious minds. It is perennial with us; and, personally, the only solution I see for it is—I do not know that it has been presented to you gentlemen as yet, and it may be rather too much of an innovation—my opinion is that if you keep on advancing fares you are not going to increase your revenue. At least, you will reach the point, and are probably very near to it now, in many instances, where with further increases you will not increase your revenue; so that you can not look to that.

The people must be transported to their work, and my idea is to charge a nominal fare without reference to whether it will pay the revenue. That would be inaugurated, in my mind, under municipal ownership, and I do not know whether it could be figured out under private ownership or not; but under municipal ownership I do not see why a nominal fare could not be charged, and then the balance, whatever deficit came, be taken out of the values of the land, the site value that your street-railway benefits; take a portion of that for the public treasury, to support the street railway that runs into this territory that is benefited by it.

That solution would leave the expense of transporting these people with the people who were transported, and it would, it seems to me, solve it without too much disturbance.

On the other hand, if you charge those high fares, you create a resentment and a feeling of extortion amongst the people who can not understand it, and who are suspicious of it, particularly if it is a private corporation.

The CHAIRMAN. The United States marines, who fought at Chateau-Thierry, are just going by on Pennsylvania Avenue, and I think we ought to adjourn to see them go by.

(Whereupon, at 12.35 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

STATEMENT OF F. F. INGRAM—Continued.

The CHAIRMAN. Mr. Ingram, just as we adjourned you said that you had a solution of the street-railway question. I suppose there is no community in the country that has had more to do in studying this question than Detroit, and of course, we want the benefit of your suggestions on that.

Mr. INGRAM. Well, Mr. Chairman, I did not say I had a solution; I did not speak with that positiveness. I had a suggestion or proposition.

The CHAIRMAN. Well, that may lead to a solution.

Mr. INGRAM. Yes. I think it is well worth considering. I want to say on the start that I am not its corporation bairer in any sense.

The corporation that runs our street railway in Detroit has had a very rocky road to travel and I think that the situation perhaps has been made worse by their untactfulness in meeting different situations as they have come up, which has prejudiced the public mind in

Detroit very much against private corporations running street railways. So far as they have abrogated the day-to-day agreement which is holding in suspense the municipal ownership that the people voted for, and have given them in the meantime six tickets for a quarter, they prepared the public mind for a 5-cent cash fare by telling them how much better service they would get when they came to a 5-cent fare; which they did, without any improvement of service. Then comes the skip-stop which reduces the number of stops by one-half for the benefit of the service; but the people do not see any benefited service, but they did see a very material reduction in the cost of running the street-cars. Then right along with all those things, the trailer, for instance—two cars tied together—would stop the congestion. Our cars have been horribly crowded. And that was put over, and that made less stops again, and the cars were crowded just as much, and as the population grows, even more so perhaps. So that the people have lost faith in the corporations, and that causes our public officials to hesitate about giving them any accommodations or the consideration that perhaps they justly deserve. So that the next step is municipal ownership.

Now, the suggestion that I have named would be operative, I think, without any complications under municipal ownership. Under private ownership whether such a solution could be put in force I do not know.

The CHAIRMAN. I am not clear that you made your suggestion before the noon hour. Will you please repeat it, if you did?

Mr. INGRAM. Well, my suggestion was that the passenger be charged a nominal fare without pretense of covering the cost of the service.

The CHAIRMAN. What should that fare be?

Mr. INGRAM. Well, three or four cents.

The CHAIRMAN. With or without transfers?

Mr. INGRAM. With the transfer. We are accustomed to transfers. That would make for tremendous trouble, to educate the people out of the transfer idea, at least in Detroit. Then the deficit, whatever it may be, should be assessed against the land that is affected by the service.

The CHAIRMAN. How would you apply that to existing street-car lines?

Mr. INGRAM. By simply passing the money over to the treasury of the street-car company and assessing it. In our city, we are constitutionally compelled to assess our land separate from our improvements, buildings, etc.

The CHAIRMAN. You mean the lands that are benefited by the street-car lines?

Mr. INGRAM. Yes.

The CHAIRMAN. They are to be assessed each year to make up the deficit?

Mr. INGRAM. For the preceding or following year; that is a book-keeping proposition, what that deficit takes care of, either on an estimate or book showing. That would satisfy the street-car riders, and values are created at both ends of the line and along the line by this public service, and it is taking a portion of it to pay for the service.

The CHAIRMAN. Then you believe that this deficit should be borne by property that is benefited rather than by the general public through taxation?

Mr. INGRAM. Yes; I do. That is, the general public so far as they own that land. That would not apply to the buildings, you know; the buildings are not benefited by the facility of travel but the land is; and why should not it bear some of the burdens as well as the passengers on the cars? It would not create any great apprehension among the landowners, it seems to me, and it would be a satisfactory solution so far as the car rider is concerned.

The CHAIRMAN. What fare are they charging there now?

Mr. INGRAM. They are charging a straight 5-cent fare, with the transfers.

The CHAIRMAN. Is the company paying its expenses and fixed charges with that fare?

Mr. INGRAM. I doubt it. It is being agitated now—a charge for transfers; but that is not as I understand it, and it was not the proposal of the street-car company, but it is one of their proposals to get out of the trouble they are in.

The CHAIRMAN. Under your plan, with a 3-cent fare, might it not be that there might be a deficit of two or three or four millions of dollars in the operation?

Mr. INGRAM. There might be.

The CHAIRMAN. And that would all have to be applied to the benefit of the property?

Mr. INGRAM. Yes, sir.

The CHAIRMAN. Would not that be a great burden to the property?

Mr. INGRAM. I do not think so; no, sir. I do not think so.

The CHAIRMAN. Have you ever attempted to work out a scale for taxation based upon your plan to see how it would affect property in Detroit?

Mr. INGRAM. Yes; I have. I mentioned my suggestion advisedly because I had thought about those things. In London when they make a great improvement like opening a new street, or widening it, they do not assess that against the property of London but against the property that is benefited by extra condemnations.

The CHAIRMAN. That is new construction?

Mr. INGRAM. Yes; excess condemnation—that is construction; yes. But I do not see why the same theory would not work as works in operation in this country. In California the irrigation in dry counties is done on that basis. The cost of the irrigation waters and maintaining them and operating them is assessed pro rata against the property affected by it and it is very satisfactory to the property owners. And that theory applied to the railroads, I do not see any complications in the railroad proposition that are not equal to the California experiment.

The CHAIRMAN. Has your proposition been discussed in Detroit?

Mr. INGRAM. No, sir; not to any extent, I do not think.

The CHAIRMAN. Do you know how the property owners look upon it?

Mr. INGRAM. I do not. I could not speak for them. I only speak for myself. I do know that a good many I have discussed it with think that is a solution, but that is not a matter that has been discussed in a big way, you know, and brought out for discussion.

The CHAIRMAN. I presume that on a referendum vote on that question that the street-car riders who do not own property or who may own property that is remote from the street-car lines would all vote for that sort of a proposition to get a 3-cent fare.

Mr. INGRAM. I think the property owners in a large measure would vote for it.

The CHAIRMAN. You think they would?

Mr. INGRAM. I do. I do not think that that would be received with much dismay by property owners that appreciate the value of good service, and of course primarily of the line itself. Our property would be worth very little—

The CHAIRMAN. Are you going to have municipal ownership in Detroit?

Mr. INGRAM. I do not see what is going to prevent it. The people have declared for it. I might say that, in considering that, since they voted so overwhelmingly for it, there have been two measures proposed that they have voted against; but they voted against the measures because of the details of the measures which they did not consider reflected their views when they voted for municipal ownership. They wanted the whole hog or none. But I do not think there has been any change in their minds regarding municipal ownership if it is given to them without strings tied to it. But they have believed that the municipal ownership that they were given was a camouflage for a private corporation or for some other reason, and they voted against it.

The CHAIRMAN. Do you believe that municipal ownership could operate those plants to-day at less than 5 cents?

Mr. INGRAM. I do not know, sir, as to that. I am not posted on that. I would not want to express an opinion. I do believe, though, that they would operate it as economically, considering the service they give, as a private company. They would have to give better service, because they are more amenable to the people. And that answers also an objection that might be raised to my proposition regarding municipal ownership—that the people have little confidence in their public officials, as little perhaps as they do in the street-railway officials.

That is true in some isolated cases, but they always have the satisfaction of getting rid of those public officials any time or disciplining them, and they can not do it or they feel helpless before the men responsible for a street-railway company. And irrespective of the merits of the service the people that they can not touch, that they consider are irresponsible, their minds are so prejudiced against them that they will be dissatisfied where they would be resigned possibly to the same service under municipal ownership.

The CHAIRMAN. We thank you very much.

Mr. WARREN. I want to ask just one question: Did I understand you that during the strike public sentiment was that the city could get along very well without the street railway?

Mr. INGRAM. Well, I can not speak for public sentiment. Public sentiment, as it appeared to me, got to that point by propaganda that came right along immediately preceding this strike from Mr. Sorensen, of Ford's, who has the tractors ready for it, that with no extra charge and no greater charge for the fare that they could handle it with the rubber-tired wheel and without the trolley in the track.

Mr. WARREN. Could not the city get rid of the street railway overnight if they wanted to? Have not all the franchises expired?

Mr. INGRAM. All the essential franchises have expired; yes, sir.

Mr. WARREN. And the company is operating there at the caprice and will of the city government, is it not?

Mr. INGRAM. They have not any franchises on their important lines. The only ones they have are little tag-ends.

Mr. WARREN. Have not they spent something like \$13,000,000 in the last 8 or 10 or 12 years on lines which were built and are operated at the caprice and will of the city?

Mr. INGRAM. At what?

Mr. WARREN. At the caprice and will of the city? They can only stay there at—

Mr. INGRAM. Well, they have not built all that they agreed to build with the city, but they have built some under an arrangement whereby the city can take them over at cost, less depreciation. That arrangement is made on all those new lines.

Mr. WARREN. And on the expired franchise the city can order them out without any trouble?

Mr. INGRAM. Under the so-called Ford decision I so understand it. It has gone to the Supreme Court of the United States and we have been given that authority.

Mr. WARREN. Nothing has been done under that, has there?

Mr. INGRAM. Nothing has been done but talk, but the people are not languid in their interest in the matter at all.

Mr. WARREN. Don't you think that, if the people of Detroit are in a state of mind where they consider the street railway unnecessary, that they would object very strenuously to your suggestion of a nominal fare taxing the landowners for the annual deficit of operation?

Mr. INGRAM. I do not know. I think that the people are so desperate in the desire to get out of the suspense they are in on our street-car matters that they would not object to that as a solution.

Mr. WARREN. I can not understand a public caring nothing for the service, considering it of no use to them, on the one hand, and on the other, being willing to tax themselves several million dollars a year in order to keep it.

Mr. INGRAM. That exists because we have the lines; we can not get rid of the lines apparently unless—there is one of two ways; my way, which has not been discussed, as I stated to the chairman, so I can not say what the public will is in the matter; and the other is a rubber-tired wheel.

Mr. WARREN. And ordering the tracks out?

Mr. INGRAM. Well, the tracks would remain, but, of course, if they were found useless after the experiment then they would order them out, but if they put that in in a comprehensive manner, it would no doubt paralyze and suspend the street railway, and if it was a success the street railway would not be needed; if it was a failure it would be resumed again.

Mr. WARREN. I thought you said the people did not care for the street railway and were prepared to see it go?

Mr. INGRAM. I stated that the people, so far as the laboring classes are concerned, seemed to be disappointed that the street-railway strike was settled.

Mr. WARREN. Those were the ones riding at the expense of their employers?

Mr. INGRAM. Yes.

Mr. WARREN. But how did those members of the community feel who were paying jitneys sometimes as high as 25 cents for a ride? Did they look at it as a picnic also?

Mr. INGRAM. I think the general mind, even among employers, is that we are getting awfully tired of agitation.

Mr. WARREN. You want peace at any price?

Mr. INGRAM. Well, peace, anyhow. And it looked like a reasonable thing from the data that was being supplied almost daily there by one of the largest manufacturers of traction vehicles in the world—and he has never disappointed us so far in his predictions in those matters.

Commissioner GADSDEN. I would like to ask right there a question on this line, Mr. Ingram: What was the congestion on the streets—the relative congestion on the streets—when the street-cars were running and during the strike?

Mr. INGRAM. Well, our city runs like a funnel, right into one place, and the transfers are all there, so that for an hour or two twice a day, when the street-cars are running, it is extremely congested.

Commissioner GADSDEN. What was the situation when street-cars were off the street and all these vehicles were there?

Mr. INGRAM. When the vehicles were running they would run the shortest route, without any reference to the city hall point of the city, where all these lines converge. As the consequence, the congestion was greater in the outlying streets, but not so great at the city hall.

Commissioner GADSDEN. That is the idea. Outside of this place of concentration, was there not more congestion on the streets during the strike than when the cars were running?

Mr. INGRAM. There was, outside the main Woodward Avenue and where other streets intersected.

Commissioner GADSDEN. Does not that suggest a very important consideration if we are looking forward to getting rid of the street railroads—whether or streets will not be so congested that we can not get around?

Mr. INGRAM. I do not think that would follow. You see, there are so many more automobiles; the automobiles can go anywhere, and if the street is congested it will go to a parallel street, while the street-car line on a track, of course, is rigid, and they have to go to their points. With automobiles, if the council finds a certain street is too congested, they will have one-way traffic on that street. We have that now both in Boston and New York and Detroit; you see it all over town; and when the streets get so much more of that rubber-tired traffic there will be more of those one-way streets; and I do not believe that the congestion will be increased; at least the dangers or inconveniences which exist and the congestions being scattered more, I think will be an advantage.

Mr. WARREN. Just one other question. That vote that you refer to as so overwhelmingly in favor of municipal ownership was in 1910, was it not?

Mr. INGRAM. I think that is the year.

Mr. WARREN. I thought that is what you said.

Mr. INGRAM. I said I thought that was the year; yes, sir.

Mr. WARREN. Since that time have there not been four municipal-ownership propositions submitted to the citizens of Detroit?

Mr. INGRAM. I do not think there have been four. There have been three defeated.

Mr. WARREN. There has been one this year?

Mr. INGRAM. Yes; overwhelmingly defeated, as the other was adopted.

Mr. WARREN. Was there not one in 1912?

Mr. INGRAM. I daresay. I do not remember the dates, but I was there and remember the votes. There were two or three votes.

Commissioner GADSDEN. Did you vote for municipal ownership all these times?

Mr. INGRAM. No; I did not vote for these propositions as they came up.

Commissioner GADSDEN. I thought you said you believed in municipal ownership.

Mr. INGRAM. I do.

Commissioner GADSDEN. You did not vote when you had an opportunity to acquire the property? You voted against it?

Mr. INGRAM. I was going to explain. I did not think that was any index to the municipal-ownership idea of Detroit or the public opinion. The municipal-ownership people, or those who have heretofore voted for it, voted against these propositions sufficiently to defeat them, because it was not the kind of municipal ownership they wanted. They protested against the submission and tried to prevent these particular propositions from being submitted; and when they were submitted they voted adversely to them, and they were defeated. But if they had a vote without those attachments that they objected to and had an opportunity to vote, I think they still think they would carry Detroit and no question about it.

Commissioner GADSDEN. Was it the purchase price which was objected to?

Mr. INGRAM. That in part, and then the contracts between the owners and the city were a source of much criticism and objection. In one case at least it was objectionable as to the price; the price was to be determined after the vote.

Mr. WARREN. Some of the propositions, however, included a definite price?

Mr. INGRAM. The last one did; yes, sir.

Mr. WARREN. That was the one arranged by Mayor Couzens?

Mr. INGRAM. Yes.

Mr. WARREN. And he is of the Ford Co., is he not?

Mr. INGRAM. He is not an officer of the company; he is a stockholder.

Mr. WARREN. A stockholder?

Mr. INGRAM. Oh, yes; and he was very prominent as an officer and director up to three years ago.

Mr. WARREN. So that both when the price was not mentioned and was left indefinite and when it was mentioned and was definite, equally in both cases, the voters turned down the proposition?

Mr. INGRAM. Turned down the proposition for different reasons, but not for reasons that they considered incompatible with municipal ownership.

Commissioner GADSDEN. It looks pretty hopeless, then.

Mr. INGRAM. It does.

Commissioner GADSDEN. In other words, you want it but you will not trust anybody to fix the price.

Mr. INGRAM. Well, that is human nature.

Commissioner GADSDEN. I say is not that the real trouble—that they always think that there is some graft in the price somewhere?

Mr. INGRAM. The public is suspicious.

Commissioner GADSDEN. Even suspicious of Mr. Couzens, who has been pursuing the company all the time since he has been mayor?

Mr. INGRAM. You know that suspicion comes from their untactfulness in all these changes. Where they reduced the service, if they had said they were making the change to reduce the cost of the service, the people would be satisfied, but they said they were making the change because they had permission to do it and because they were going to give them better service; but they gave them service which was not better.

Mr. WARREN. I suppose you will agree that the company ought to have a reasonable return on the value of the property they use?

Mr. INGRAM. Yes, indeed.

Mr. WARREN. And if the property is taken over by the city they ought to have a fair price paid?

Mr. INGRAM. I fully believe in that; yes, sir. Oh, yes. I have not any prejudice against the corporations.

Mr. WARREN. No; I do not think you have.

Mr. INGRAM. No. I am very much obliged to you, gentlemen.

(Witness excused.)

The CHAIRMAN. Who is the next witness, Mr. Ogburn?

Mr. OGBURN. The next witness was to be Commissioner Bliss, of Rhode Island, who was to testify at 2 o'clock. I do not believe he has come in from lunch.

The CHAIRMAN. Have you some other witness?

Mr. OGBURN. Following him is Mayor Couzens, of Detroit, who was scheduled for 3 o'clock; and in the meantime I have received two statements, one a statement from Mayor Hanson, of Seattle, who wishes it placed before the commission, and another is a statement from Mr. O'Shaughnessy, sent at the request of Mayor Rolph, of San Francisco, who wishes that placed before the commission. If you like, I could either read this to the commission or place it on file.

The CHAIRMAN. How long is Mayor Hanson's communication?

Mr. OGBURN. Mayor Hanson's communication is four pages long.

The CHAIRMAN. You had better read it.

Mr. OGBURN. He writes as follows, that he is transmitting for the commission the following information:

First, a statement showing events leading up to the purchase of street-railway properties in Seattle.

Second, a financial statement for the period April 1 to July 1, 1919.

Third, copies of ordinances affecting the purchase of street railway properties.

What I think he considers of primary interest is this statement leading up to the purchase of the properties:

Some years ago the Puget Sound Traction, Light & Power Co., operating most of the privately owned street-railway lines in Seattle, filed with the Public Service Commission of the State of Washington an application to be relieved

from certain franchise obligations relative to paving of its right of way, payment of proportion of its gross earnings, and payment of bridge rental and other franchise obligations.

Because of this pending application the company did not comply with its franchise obligations. A decision was finally rendered by the public-service commission in a similar case coming up from the city of Tacoma, wherein the public-service commission decided adversely to the railway company's contention.

The city of Seattle also was successful in its various suits in the superior and the supreme courts of the State to enforce payment of gross earnings, taxes, and payment of proportion of bridge rental. The long record of litigation between this company and the city resulted in the rapid crystallizing of public sentiment to a point where it was shown that the Puget Sound Traction, Light & Power Co. could no longer enjoy the good will necessary to operate its street-railway property.

The company was also in dispute with its employees as to a proper scale of wages. And was unable at the scale of wages it was paying to secure an adequate number of men to operate its cars; it had as much as 20 per cent of its equipment in the barns at one time, although these cars were imperatively needed to take care of the transportation of the shipyard workers. The city officials endeavored to adjust in an amicable manner the points at issue between the company and the city, in order that better service might be provided for the public; and on July 6, 1918, I sent the traction company a communication in which I indicated willingness to cooperate with the company in every way, even waiving for the period of the war certain franchise obligations, and also cooperating with the company so that operating economies would be effected in the following manner:

(a) Inauguration of system of skip-stops by which the company expected to save \$100,000 per year.

(b) Elimination of street congestion due to standing and parking of motor cars at curbs. This the company expected would result in a saving of approximately \$100,000 per year, as a faster running time could be maintained through the business section.

(c) Permission from the city to use new bridge in the north section of the city, by which faster running time could be made.

(d) Transfer exchange between the Municipal Railway lines and the company's lines.

(e) The right to use idle cars of the Municipal Railways on a fair rental basis.

(f) Emergency interchange of power between city and company.

(g) Assistance in staggering of school hours and stopping hours to relieve peak loads.

(h) Extra charge of 1 cent for transfers on certain lines, which would mean a probable extra revenue of \$200,000 per year to the company.

(i) Discontinuance of service on certain lines where service was being maintained only to hold franchise.

(j) Relief during the period of war from compliance with the paving obligations of the company's franchises. The unfulfilled paving obligations to this date would have required the expenditure of approximately \$400,000.

These concessions were to be contingent upon the company's consenting to increase the pay of its employees so that \$4 would be the minimum wage for eight hours, and also to pay its past due percentage of gross earnings and to operate all the cars available.

The city then entered into conference with the company on the points involved, and on July 11, 1918, the city council adopted a recommendation of the committee of the whole, reading as follows:

"That it is the sense of the city council that the Puget Sound Traction, Light & Power Co. be permitted to earn on its railway systems during the period of the war an average net amount equal to that earned during the years 1913, 1914, 1915, 1916, and 1917 and that the superintendent of public utilities be appointed to report to the council what increase of fare, or other modifications in the charges of fare, should be made to enable it to provide adequate service to the public and fair conditions to employees, and that he be authorized to employ such expert assistance as he may find necessary for such purposes."

In compliance with this recommendation the department of public utilities submitted on August 17, 1918, a report to the city council.

During the discussion of this report I made an offer to lease for the period of the war the operating street-railway property of the company upon the understanding that the property was to be kept in as good condition as when turned over to the city; that the company would receive a net return equal to the average net return it had earned on its properties for the last four preceding years; and that the city of Seattle would purchase direct current power for the railway system from the company at the rate of 1 cent per kilowatt hour on the trolley feeder lines.

The city council on September 6, 1918, after considering the book valuation of the company, as shown by reports made by the auditor of the public-utilities department and by a firm of accountants employed by the city of Seattle, and also after considering the two engineering appraisements showing a value in the street-railway properties of the company, close to \$20,000,000, offered to purchase the operating street railway property of the company in the city for the sum of \$15,000,000, payable in utility bonds bearing interest at the rate of 5 per cent per annum, payable semiannually, and to purchase direct-current power from the company at the rate of 1 cent per kilowatt hour on the trolley feeders.

On September 13, 1918, the company advised that it would accept the city's offer and that it was ready to settle the details of the transaction at an early date.

On January 8, 1919, ordinance No. 39069, providing for the acquisition of the street-railway lines of the Puget Sound Traction, Light & Power Co. was approved. This ordinance by reference to ordinance No. 39025 provides that the purchase price of \$15,000,000 shall be in utility bonds. Ordinance No. 39025, approved December 31, 1918, provides that the bonds shall bear 5 per cent interest payable semiannually on the first days of March and September and also provides for the retirement of the bonds at the rate of \$833,000 a year, beginning February 1, 1922, to and including the year 1939, when the final payment of \$839,000 shall be paid.

Ordinance No. 39025 in the matter of the payment of interest charges and rates of fare provides as follows: "The city of Seattle further bonds itself to establish and maintain rates for transportation upon such municipal street-railway systems which shall provide sufficient revenues to permit such sums being paid into such special fund which the city has pledged to be set aside semiannually for interest, and annually for principal, as here provided, to be applied to the payment of principal and interest of the bonds herein authorized, until such bonds have been paid in full."

In the litigation incident to the purchase of the street-railway properties the city of Seattle was successful both in the lower court and in the supreme court of the State, which, on March 5, 1919, confirmed the legality of the proceedings by which the city aimed to acquire the property. On March 31, 1919, the proceedings were finally consummated and municipal operation began at 11 o'clock p. m. on that date.

(Signed) OLE HANSON,
Mayor of the City of Seattle.

Accompanying that is this financial statement. Probably the only item you would be interested in is the sum total and not the details, for the quarter or three months during which the city has run it, showing that during that time the total expense incurred was \$1,292,230.87 and the revenues derived from transportation and from other sources were \$1,299,039.68, showing a gain for the three months ending June 30 of \$6,808.81.

Commissioner GADSDEN. What do they include in operation?

Mr. OGBURN. They include—the operating report here is in considerable detail.

Mr. WARREN. Do they include the interest on the bonds?

Mr. OGBURN. Yes; I assume that is the total interest on those bonds. They include interest in the sum of \$198,781.26.

Commissioner SWEET. That would be the interest for three months?

Commissioner GADSDEN. No. Did you say \$198,000?

Mr. OGBURN. Yes.

Mr. WARREN. Fifteen millions of them, are there not? Would not that be \$750,000 a year? This is for three months, approximately.

Mr. OGBURN. Approximately.

Mr. WARREN. Do they include anything for taxes?

Mr. OGBURN. No; the other items are insurance, \$20,000; damage claims, \$20,000; and under depreciation, this note is made, "An average for depreciation would ordinarily be \$75,000"—you see, nothing whatever was put under depreciation in this statement. "Owing to the fact, however, that our maintenance charges are heavier by \$98,743.93 than the same period last year, we feel that we have appreciated the property and that no depreciation should be charged."

Commissioner GADSDEN. That has a familiar sound.

Mr. WARREN. I think you will find all our maintenances were heavier during the last three months.

Mr. OGBURN. Under damage claims they say: "As the city paid out about \$1,000 for damage claims, we have set aside arbitrarily the sum of \$20,000 as a proper amount to be charged."

Commissioner SWEET. What were the other sources of revenue besides fares?

Mr. OGBURN. They received \$3,900 from station and car privileges. They received \$8,400 for the use of tracks and facilities, which is four times the amount received for the same period the previous year. They received \$835 for rent of equipment. They received \$1,500 from miscellaneous rent revenue. They received, in addition to passenger revenue, \$182 from parlor sleeping-car, dining-car, and special-car revenue; \$9,250 from freight revenue; and \$1,860 from certain miscellaneous.

Mr. WARREN. Does it give the corresponding figures for the year before?

Mr. OGBURN. Yes.

Mr. WARREN. What does it give for taxes the year before?

Mr. OGBURN. That is not shown.

Mr. WARREN. For either year?

Mr. OGBURN. No. Apparently no taxes were paid during that quarter, and nothing is shown as far as that is concerned.

The CHAIRMAN. Before you start with the other statement, may I inquire if any of the other witnesses are present?

Mr. OGBURN. I understand Mayor Couzens has come in.

The CHAIRMAN. You may file in the record the statement of Mayor Hanson, and we will now hear from Mayor Couzens.

STATEMENT OF MR. JAMES COUZENS, MAYOR OF THE CITY OF DETROIT.

Mr. COUZENS. Gentlemen, I did not come down here with any canned speech or canned talk. I assumed that you gentlemen have been in session long enough to have heard and absorbed all the information that was obtainable on urban transportation. Anything that I might say with respect to the subject as a whole would probably be old stuff with you and would take up your time and accomplish nothing. I came down here particularly because I was invited, and I wanted to show an interest in the problem, which is

very vital in Detroit as well as vital, I understand, all over the country.

I do not know whether it would interest you or not to have a little of the history of the street-railway problem in Detroit—

The CHAIRMAN. Did you hear Mr. Ingram's testimony this morning?

Mr. COUZENS. No, sir; I did not.

The CHAIRMAN. Mr. Ingram told us something about the constitutional convention and the vote of the city by which they voted for municipal ownership, 80 to 20, and also he stated some of the conditions growing out of the recent strike, and then advanced a solution of the problem by which the city should own the plant and operate it by charging 3-cent fares and then assessing the deficit against the benefited real estate. That, in brief, was his testimony.

Mr. COUZENS. I did not come down here with any definite solution as to how we should bring around municipal ownership and operation, which I am unalterably in favor of. I believe there is no other solution of the urban-transportation problem than to view it as a social problem. I think it is purely a social problem in identically the same manner as water and sewers.

Commissioner SWEET. I suggest that you proceed, Mayor Couzens. Just give us a history of the railways of Detroit.

Mr. COUZENS. I can not recall just all of the history, but I will recite a little bit of it to show you how difficult it is to really solve the problem when it goes to the vote of the people, as it has to in our community.

Our citizens are, in my judgment, and, as expressed by two votes, unalterably in favor of municipal ownership and operation of our street-railway systems; but when it comes to putting up a concrete proposition to which the company has previously agreed, they seem to believe that there is a "nigger in the woodpile" and are afraid of us so-called politicians. In other words, this little history will show, over a period of years, just what it would have meant to the companies themselves if the people had voted to accept any one of several propositions that the public officers submitted to the citizens for a vote.

Now, if you will go back to 1906, there was an ordinance submitted under Mayor Todd at that time, which extended all of the franchises—there were some expired and there were a lot of small ends, stub ends, a conglomeration of franchises, which it was planned to have expire simultaneously; and that was on December 4, 1924.

That vote was submitted, and the plan was to sell tickets 6 for a quarter at all hours of the day, and to sell them at 10 tickets for a quarter during the hours from 5 to 8 in the morning and 4 to 6.30 in the afternoon—10 for a quarter, a 2½-cent fare.

The vote on that question was 14,411 in favor and 30,978 against it.

The CHAIRMAN. That is surprising. What caused that?

Mr. COUZENS. Because it was a deal with the company. They did not trust the company.

Mr. WARREN. Were those rates agreed to?

Mr. COUZENS. Yes; those rates were agreed to in advance.

Again, on January 23, 1912, only seven years ago, an ordinance was submitted to the vote of the people which terminated all the

franchises on the same date as the previous proposition, namely, December 4, 1924; and at that basis they were to sell eight tickets for a quarter from 5 o'clock in the morning until 8 o'clock at night, and six tickets for a quarter at all hours of the day. And the vote on that proposition was 22,308 in favor and 30,733 against.

Either one of these propositions, had they been carried through, would have had the company bankrupted, on their present statement, at least, years ago.

Mr. WARREN. What year was that? When was that second vote?

Mr. COUZENS. That was on January 23, 1912.

A charter amendment was submitted to the people on April 7, 1913, asking the people to determine a policy—the alternative being municipal ownership and operation versus private ownership and operation—and on that vote the people voted 40,531 in favor of municipal ownership and operation and 9,542 against it—5 to 1.

In November, 1915, a plan was submitted by the board of street-railway commissioners, of which I was a member at that time, providing for municipal ownership and operation and the valuation of the property by the six circuit judges who were elected by the people of Wayne County.

That proposition was voted, 32,514 in favor and 35,678 against it. In other words, they called it a blank-check proposition, because the circuit judges were to fix the prices, the value of the property, after we had taken over the property and begun to operate it.

The last proposition that was submitted to the people was a municipal ownership and operation proposition in which the company and the municipal officers agreed on a valuation of \$31,500,000.

The vote on that proposition was 63,833 in favor of it and 70,271 against it; and by our State constitution we were required to have a 60 per cent vote in favor of the proposition.

The CHAIRMAN. How do you explain the tremendous growth in the last vote?

Mr. COUZENS. Well, women voted, for one thing, at that time, and the city has grown by leaps and bounds.

Mr. WARREN. There was not even a majority in favor of it?

Mr. COUZENS. No; the actual showing was 47.6 per cent in favor of it.

That is the history, in a concrete way, of Detroit's problem in dealing with the transportation company.

The CHAIRMAN. As far as the last vote is concerned it shows that the people are not satisfied with municipal ownership, does it?

Mr. COUZENS. Oh, no, sir; they were not satisfied with that specific deal. In other words, you and I may like to build a new home, but we might not like the plan submitted.

The CHAIRMAN. Of course, this has been voted on quite a number of times, and I understand they have been voting upon the specific plan suggested; and, in the meantime, has there been a development of or a lessening of the demand for municipal ownership?

Mr. COUZENS. That would only be a guess on my part, the same as anybody else's guess.

The CHAIRMAN. Have you any opinion?

Mr. COUZENS. I have an opinion—that they want municipal ownership and operation, but they do not want to be loaded up with the assets of the old company that now is on the streets.

The CHAIRMAN. Proceed.

Mr. COUZENS. The company, in my judgment, has not played fair, and the people are acquainted with that fact. They have deliberately agreed to a plan, and then, directly or indirectly, set the wheels in motion to defeat it. They would probably deny it, but I have information which leads me to believe that they deliberately started out to defeat a plan after once agreeing to it. Either they do it directly or through their associates, financial associates, in particular, who underwrite their bonds and securities from time to time. I have reason to believe that probably the local officers might like to be relieved of the constant turmoil, but those who have nothing to do with the real problem of carrying the people, but only have to do with the making of the money out of the securities naturally do not want to see it slip away from private ownership to municipal operation and ownership.

Commissioner SWEET. What has been the attitude of the Detroit newspapers, Mr. Mayor?

Mr. COUZENS. The Detroit newspapers have varied in the different plans. For instance, the Detroit News has consistently been in favor of municipal ownership and operation.

Commissioner SWEET. And that has the largest circulation, I believe?

Mr. COUZENS. That has the largest circulation, larger than all of the others put together, I believe.

Commissioner SWEET. How is the Free Press?

Mr. COUZENS. The Free Press has been consistently opposed to municipal ownership and operation.

Commissioner SWEET. And the Journal?

Mr. COUZENS. The Journal has changed ownership. In the first cases, on the old ownership, if I remember correctly, they opposed municipal ownership, and in the last case they said they did not like it—under the new ownership they did not like municipal ownership very much, but saw no alternative, and said they hoped the people would vote in favor of acquiring the lines. So, in that case, we might fairly say that we had two or three papers for it and one against it.

I am satisfied that you gentlemen are going to take into consideration very seriously the social aspect of the solution of this matter, because I can not find anyone who, at this age, denies the fact that it is a social problem.

During the last street-car strike the great pressure that was brought to bear upon the local administration to settle the strike on some terms was by the men who never used the cars at all. So you see that they were not interested in the starting of the cars from the standpoint of their personal convenience, but purely from the standpoint of their business. Every one of these men used motor cars and had absolutely no use for the street-cars as a personal service, but simply to bring the customers to their stores or to take their workmen to the shops. I believe, unless this question is solved on the social basis, the time will arrive when it will be the duty of the manufacturer to go and get his help and send it home, because help can not continue to put up with the congestion and the embarrass-

ment and the inconvenience that they now have to put up with in urban transportation, so far as it is applied to Detroit.

Now, men will say—and I think properly say—if the men who exerted such a great effort at the last strike to have it settled, if they display such a great interest in urban transportation when they do not use the service themselves, the men will recognize, and I believe you will recognize, that it is, therefore, a social problem in which these men are most widely interested who have nothing to do with riding on the cars themselves.

So that that brings up the question as to whether or not the upkeep and maintenance of a transportation system should at all times be borne entirely by the car rider.

I am convinced that up to a certain point the carrier should pay for the service; but beyond a reasonable point the community benefiting by it should make up any deficit.

I believe there are many ways that these burdens above cost of the fares might be borne in part, probably, by the suggestion offered by Mr. Ingram as to the lines being paid for by the property directly benefited, if it is in newly developed territory. But if it is for the service of the manufacturer and the merchant down town, or the big office building, then it seems to me that they should bear a part of the burden to get their employees to and from their place of living in a comfortable and decent manner.

We have long passed the point where our individual health is a question of our own concern. The public has recognized all over, now, that your health and my health is a matter of public concern; and whether we ever have diseases or not, we pay to reduce the death rate. We pay to collect the garbage, we pay to protect the health of the community, whether we have incinerators to burn our own garbage or not. And it is as much a community problem to carry citizens in a comfortable and decent manner to and from the places they want to go or have to go as it is to collect our garbage or clean our streets or furnish our schools or preserve our health; and if that is recognized—which I believe it will be soon if it has not reached that point yet—we will then recognize that it is a service which the community must furnish for itself.

I venture to predict here that there will be no other solution of the urban-transportation problem until it is put into the hands of the municipality itself by purchase and operation.

I could talk more about the things that you undoubtedly have heard from through the witnesses who have appeared before you during the time you have been in session, but, as I said before, I do not want to burden you. I shall be very glad to answer any questions that any of the commissioners may care to ask me.

The CHAIRMAN. What is the maximum fare which should be charged by these companies?

Mr. COUZENS. The conditions vary from time to time. I believe at the present time, inasmuch as a nickel is a unit of coin made by the Government, that that unit would not be objectionable to the citizens. I believe they would be satisfied.

The CHAIRMAN. Do you believe the people in Detroit are willing to pay a larger fare?

Mr. COUZENS. I certainly believe they would not be.

The CHAIRMAN. Would the increase in the fare to 6 cents in Detroit be at all commensurate with the increase in the wages that have been allowed your employees and others in the city?

Mr. COUZENS. I have not all the figures here, but at the time we had our strike I looked them up, and I was satisfied at that time that it would.

The CHAIRMAN. It would?

Mr. COUZENS. Yes.

The CHAIRMAN. Would you be in favor of having the plant privately operated on, say, a 5-cent fare, or a less fare, and to have the municipality make up, through a tax rate, any deficit in the operation?

Mr. COUZENS. No, sir; not to a privately owned company.

The CHAIRMAN. Then I take it that the only condition upon which you would believe that the city should be taxed for a deficit is when the property is operated and owned by the city?

Mr. COUZENS. Yes.

The CHAIRMAN. Do your street-car lines extend beyond the confines of the city of Detroit?

Mr. COUZENS. Yes. The company which operates in Detroit has some 900 miles of street-railway lines.

The CHAIRMAN. How many villages and cities does it go in?

Mr. COUZENS. A great number; but they have urban fares. They do not come under the one-zone fares.

Mr. WARREN. Interurban fares, you mean, do you not?

Mr. COUZENS. Interurban fares, yes; they have interurban fares.

The CHAIRMAN. When that company reaches a city or a village, does it then have a street-car fare?

Mr. COUZENS. I think not in all cases. They might in some of the larger cities like Flint, possibly, and other cities, but in the smaller cities in close proximity to Detroit, such as Royal Oak and Birmingham, and these places, and Dearborn, they do not.

The CHAIRMAN. Would you favor having the city own the plant within as well as without the limits of the city, assuming that the city had the power to do it?

Mr. COUZENS. The city has the power under our constitution and under our charter to own 10 miles outside of the city limits.

The CHAIRMAN. Then it is not possible for the city to own that completed system?

Mr. COUZENS. Oh, no.

The CHAIRMAN. If the city should purchase the plant within the 10-mile limit, what fare do you suppose it could operate under?

Mr. COUZENS. We proposed at the last agreement we came to with the company to buy only within the city limits. We did not propose to go outside of the 10-mile zone. We did not propose to exercise our right to go 10 miles beyond the city limits.

The CHAIRMAN. What would happen to the lines that lead into the city if you purchase just the lines within the city?

Mr. COUZENS. I think that was one of the reasons, probably, for our defeat; that to permit the interurban service to enter the city over a cost-plus basis, they would pay the cost of operation plus 25 or 30 per cent on top of the cost to the city for that privilege.

The CHAIRMAN. All the lines in the city now are operating without any franchise right, are they not?

Mr. COUZENS. No.

The CHAIRMAN. Some of them?

Mr. COUZENS. Some of them are operating without franchises. That was the purpose of these different propositions—to have them all terminate at the same time—in 1924. I think that the longest franchise that we had—the longest one that I have in mind—ends in 1924. There are some little franchises of no importance on which I believe the company placed no value at the time of the negotiations which run longer than that.

The CHAIRMAN. What per cent of the mileage within the city is now operated without a franchise right?

Mr. COUZENS. I should say, offhand, about three-fourths.

The CHAIRMAN. What is the solution there? You have voted and voted and voted and here you have a plant that has not any right to operate.

Mr. COUZENS. That is absolutely correct. I submit these figures to you because I understood you gentlemen were sitting for the purpose of aiding us in arriving at a solution.

The CHAIRMAN. We hope to be able to do so, but I am asking for your opinion. Our conclusion must be based upon evidence, I suppose, and study.

Mr. COUZENS. I know of no solution except two, and both of them would have to be submitted to a vote of the people.

One is condemnation by condemnation proceedings, which was granted by the last legislature, which met at Lansing this year. They passed bills which enabled us to condemn under those bills, and that would require, before we could proceed under that, a three-fourths vote of the people to authorize us to proceed with the condemnation, and I hesitate to even predict whether that would succeed, because of the uncertainty as to what award the jury might give to the company.

The CHAIRMAN. They had practically the same question when the judges were to fix the value?

Mr. COUZENS. Yes; when the six circuit judges were to fix the value.

Mr. WARREN. Are those judges elected?

Mr. COUZENS. Yes; they are elected by popular vote.

The CHAIRMAN. What was your second proposition?

Mr. COUZENS. The second proposition is one which I am heartily in favor of. I do not know whether the people would approve of that. That is to order them off of the unfranchised streets and proceed to operate our own system.

The CHAIRMAN. To order the plant off?

Mr. COUZENS. To order the company off the streets—off the unfranchised streets—and proceed to operate our own system.

The CHAIRMAN. Would you have the company tear up the rails and ties?

Mr. COUZENS. If they thought that that would be more valuable to them than to turn them over to us at practically their junk value, which would be all they would be worth to them; yes. I assume they would let us take the property.

The CHAIRMAN. Suppose, now, that the latter alternative should be adopted and the city should later purchase that plant at which

you call the junk value, how much would that be less than the capitalized value of that plant?

Mr. COUZENS. That would take a great deal of work on the part of accountants to figure out.

The CHAIRMAN. I thought perhaps you had evolved that?

Mr. COUZENS. No.

The CHAIRMAN. Or reached a figure?

Mr. COUZENS. No. Because we have never gone far enough to submit a proposition like that to the people; we have not studied just what it would amount to.

The CHAIRMAN. Might it not result in a practical confiscation of the property?

Mr. COUZENS. I think not, in view of the fact that the company took those main franchises under a specific term, and set up no fund for the amortization of the bonds, and practically went on and carried their full bonded debt during the entire life of the franchise, and then said, "We are here now, and here is the value of our property, and we have got to retire these bonds."

The CHAIRMAN. Has the company been on a good earning basis during its franchise life?

Mr. COUZENS. Yes.

The CHAIRMAN. It has paid good dividends?

Mr. COUZENS. Yes.

The CHAIRMAN. What has been the rate of dividends paid?

Mr. COUZENS. For the last year or two they have been paying 8 per cent on \$15,000,000 of capital.

I might explain that what I might say in that respect really has no significance, because it is one company, you see, that owns all the interurbans; they own the lines in Flint, Pontiac, Port Huron, Ann Arbor, Ypsilanti, Jackson, and Detroit; all the interurban lines together under one corporation; and they have bonds out covering all of the property, a blanket bond issue. Then they have specific bonds covering certain divisions of their lines, certain systems. Then, as I say, the stock issue covers all the properties, and there is no way for me to determine or for you to determine off-hand how much of those dividends, if you please, might have been earned out of the city system.

The CHAIRMAN. Have stock dividends been declared?

Mr. COUZENS. I think not.

The CHAIRMAN. Is there a feeling that the property is overcapitalized?

Mr. COUZENS. I think there is a feeling that the property has been overcapitalized.

The CHAIRMAN. To what extent?

Mr. COUZENS. That, as I say, is difficult to say, because of the fact that it is all scrambled with the other properties.

For your information I might say—I do not know whether Mr. Ingram spoke about it or not—that during our last strike there was a tentative agreement with the company that they were to resume service, and pay the employees a certain amount of increase in wages—not all that they asked for, but a very liberal increase in wages, and the company was to begin operation on a 5-cent straight fare. Previous to that they had been operating 60 or 70 miles of

their property on a 3-cent basis, because they were the so-called old Pingree-franchise lines; and they had been operating the 5-cent franchise lines and the nonfranchise lines on a 5-cent basis; and we agreed to abolish the 3-cent fare entirely, and permit them to charge 5 cents on the 3-cent lines, to make the fare uniform all over the system, on the 5-cent basis, with universal transfers from one line to another, with the understanding that we would put accountants in the company's offices and keep a record of the receipts and disbursements and expenses of the company for a period of three months, after which a board of arbitration was to sit and determine whether they were entitled to what they had claimed in the first instance, which was a 5-cent fare with 1 cent for transfers. It was the 1 cent for transfers which we opposed.

They estimated that this 1-cent transfer would increase their gross revenue \$750,000 a year, and we estimated about \$900,000 a year; and we also estimated the waiving of the 3-cent fare on the 3-cent lines, and the other increases, would net them a substantial increase in gross revenue; in fact, enough, we estimated, to cover the increase in wages to the employees; and that was where we split. We said: "We have allowed you enough to enable you to pay this increase in wages," and they said that we had not.

In the last two years they have greatly increased their depreciation fund, which we rather objected to being put on at this particularly burdensome time, when they had not been doing it all the time in the prosperous years.

The CHAIRMAN. Do you remember the per cent of depreciation?

Mr. COUZENS. I do not remember the per cent of the depreciation; but the board of arbitration was to decide whether or not their earnings over a three-months period—which we afterwards settled at as beginning July 1, July, August, and September, I believe it was, or June, July, and August, I forget which were the three months exactly—if the board of arbitration decided that the amount we allowed them in the extra fares was sufficient to compensate them, they were to get no more; but if the board of arbitration decided that it was not enough, they were not to allow them any greater increase than would bring them \$750,000 a year, or what a 1-cent transfer would have been.

Personally, I am opposed to the transfer system, the transfer charge; because they have adopted it in many cities on the theory that the man who gets the transfer gets the longest ride; and while I have not got into the percentage of transfer passengers who get long rides and short rides, I contend that a transfer from one car line to another is inconvenient to the passenger, and he should not be penalized, particularly if the ride is not a longer ride than he would get on a straight fare. As, for example, a man may have to go to a plant where there are a large number of men employed, 30,000 or 40,000, and he may live six blocks off the line that that plant is on, and he may have to ride that six blocks, and then from 15 to 20 blocks to the plant; and he is penalized for having no through traffic. In other words, he not only has to get off in all kinds of weather and under all kinds of conditions and wait for cars to transfer to, but he is penalized for it. That is the reason I am opposed to the transfer plan, and hope some other plan will be worked out that will obviate the necessity for transfer charges.

The CHAIRMAN. Of course, the public is thinking a great deal about this question there. Which of the two alternatives which you suggested is being given the most favorable consideration at this time?

Mr. COUZENS. Which of what two alternatives?

The CHAIRMAN. The two that you suggested—one of condemnation, and the other of simply taking the plant at scrap value, ordering them off the streets.

Mr. COUZENS. I have tried to settle it on two occasions in an orderly fashion, that is, to pay them what a jury—either circuit judges or a jury—would think the property was worth. I think that is the orderly way to do it. But the people evidently mistrust the company, and probably their officers, and, I don't know, maybe their public officers. At least, they have mistrusted some, and maybe they mistrust us; I don't know. That is the reason I am skeptical about any such plan as that being carried out by a majority of the people.

The CHAIRMAN. The first plan, the condemnation plan?

Mr. COUZENS. Yes.

The CHAIRMAN. How about the second?

Mr. COUZENS. The second plan would mean that we would have to go to the people for money, for a bond issue; which would mean that we would have to have a fight for a number of years. We would have competition, probably, between the unfranchised lines and the franchised lines, which might mean the temporary interruption of the traffic while the change was being made; but I believe that that is the only way that we will ever get it solved in Detroit.

The CHAIRMAN. You say it will take several years. During that interval, are you going to permit this company to operate on the streets without regulation as to charges?

Mr. COUZENS. Oh, no.

The CHAIRMAN. What regulation of charges would there be?

Mr. COUZENS. We have now an ordinance which fixes the fare on the nonfranchised lines.

The CHAIRMAN. Oh! You are regulating the company?

Mr. COUZENS. Yes; there is the practical difficulty, however, that some of the lines are franchised, and if we give the company the right, or if they thought they could get police protection, they probably would charge two fares—one fare on the franchised lines and one fare on the nonfranchised lines.

The CHAIRMAN. You say the street-car problem is a social one?

Mr. COUZENS. Yes.

The CHAIRMAN. Do you believe that the city of Detroit can own and operate the street-car lines more economically and efficiently than privately owned corporations?

Mr. COUZENS. I believe that they can, absolutely.

The CHAIRMAN. What is the basis of that belief?

Mr. COUZENS. The basis of that belief is that we have conducted a water system for a great many years on a very economical and successful basis; and I also believe that until you put responsibility upon public officers, public officers will not carry responsibility. I believe that you will never solve, or properly solve, municipal government anywhere—and I do not believe it has been solved in this country yet in a proper manner—until you make it a job for a man

who can do it to do it; and not allow it to be shifted to incompetents through political favor or through personal popularity. I believe that, when we get the municipal ownership in control and operation of our urban systems, the people will demand an entirely different class and higher quality of municipal officials.

The CHAIRMAN. Of course, there is a large difference in the number of employees used in a water system and in a street-railway system. Might not that thing of itself present the question in a different way?

Mr. COUZENS. I do not think so, because the street-railway employees are a very small percentage of all the population. Of course, if you are going to have cowards in public office, and you are not going to have men who have the nerve to stand up and do the right thing, you may have some trouble, of course; but I say the people will demand the right kind of officials.

The CHAIRMAN. We have had a year-and-a-half experience in operating the telephones, telegraph wires, and the railroads by the Government. Do you consider that as a fair test of Government operation?

Mr. COUZENS. No, sir. I would not care to discuss the governmental operation of telephones or railroads at this particular time. In the first place, I might say that I do not think the test has been fair, even if you were to use it as a basis for future Government ownership of railroads and telephone lines; but I believe that the municipal ownership and operation of the street-railway lines is not analogous in any degree with the proposition you have mentioned; because the telephone lines and the railroads have been operated from Washington at long range. The users of these services have not been able to get in touch and keep in touch with the operating managers. In the case of the municipal ownership and operation of the street-railway systems, the operating officials—the chief executive and all of the officers—are right there at the door of every citizen of the towns in which the service is given 24 hours a day and every day of the year, and they can demand and get the proper kind of service and proper regulation and proper efficiency.

The CHAIRMAN. If the street-railway system of Detroit was valued by competent State authorities and a true value fixed, and the rates fixed by a State board, which no more than brought in a fair return upon that value and allowed sufficient money to pay operating costs and taxes, do you think the city of Detroit—the people of that city—would object to that?

Mr. COUZENS. Most decidedly.

The CHAIRMAN. Well, now, why?

Mr. COUZENS. Because you have that absentee ownership and absentee control that I just referred to. It is the same thing that happens to the railroads of the country privately owned and operated from Wall Street and governmentally operated from Washington. It is absentee management, and we in Detroit have fought for years for home-rule legislation.

The CHAIRMAN. Suppose that the city of Detroit by law was given the right, in the first instance, to fix the rates, but either the city or the utility could take an appeal from that order or ordinance to a State commission, where the whole question could be tried out; would not that afford satisfaction to the people of Detroit?

Mr. COUZENS. No, sir.

The CHAIRMAN. Why?

Mr. COUZENS. If you are going to take purely local matters over to the State, what is the use of having municipal government? If you are going to send to Albany or to Lansing or to some other point removed from the locality affected, to determine what those localities should have, then why not let them operate all of the city's activities from the State capital instead of from the local community?

The CHAIRMAN. Would not that primarily give the city the control over the rates and the plant?

Mr. COUZENS. No, sir; because you would be giving it to the State capital.

The CHAIRMAN. Providing you are wrong, they would have the right to review, of course; but in the first place, you would have the whole problem before you.

Now, apply the same question to that of service and of extensions. Assuming that you, in the first instance, have the right to define the service and the extension, subject to the right of an appeal by the aggrieved party to the State commission, can there be any substantial objection to that plan?

Mr. COUZENS. A very substantial objection, because, as I stated, it is a purely social problem, and we should not have anybody to deal with but ourselves. If we believe in a democracy, and if we believe in self-determination, we must determine for ourselves what kind of service we shall get and when we get it and at what rates of fare we get it. I see no reason for transferring it to some other locality to decide.

The CHAIRMAN. Of course, you concede that the State has simply delegated the power over these matters to the city, do you not?

Mr. COUZENS. It has; and we fought for years to get the power; and now that we have it, we do not want it transferred back.

The CHAIRMAN. Where the State has simply delegated you, as an agent, should you, as agent, question the integrity and honesty of the State?

Mr. COUZENS. That does not enter into it, because we are a part of the State. We are not purely an agent. We are a part owner of the State, if you please. We are a part of the State. We are not the same as an owner and agent, because we are as much of the State as the legislature which delegates us that particular power. It is not a matter of agency and ownership.

Commissioner GADSDEN. Do you think it fair, from the railroad standpoint, that there should be some court of review to reverse any action of the city affecting their interests if the city were wrong?

Mr. COUZENS. The company always has the right to get off the streets if they do not like it.

Commissioner GADSDEN. That means at practically the total sacrifice of their property?

Mr. COUZENS. It does if their franchises have expired; and there is no reason why they should not have provided a sinking fund for the amortization of their debt when they got the franchise.

The CHAIRMAN. Suppose the State commission had control over the rates, the accounting, and the service of this utility during all

these years, and had had, as it should have, the right to prescribe a depreciation fund or sinking fund to take care of this plant; would not that have simply avoided the difficulty that now confronts you?

Mr. COUZENS. It might have if it started back that long ago; yes.

The CHAIRMAN. Would not that have been satisfactory?

Mr. COUZENS. At the time the franchise was granted I assume that it would have been satisfactory. But an entirely new condition has arisen, and I hardly think that is a fair comparison to take us back 30 years, when we granted the franchises, and tell us then that it might have operated all right. That is not a possibility.

The CHAIRMAN. I was just trying to develop if perfect regulation by the State with the cooperation of the municipality would not afford a solution of this problem.

Mr. COUZENS. That does not appear to have been the case with the Wisconsin Public Service Commission. I understand and am informed that the municipalities are very much dissatisfied.

The CHAIRMAN. They are dissatisfied, are they not, because State regulation has resulted in increased charges in a good many instances?

Mr. COUZENS. And an indifference as to the needs of the local communities with respect to extensions and to the number of cars run and things of that sort.

The CHAIRMAN. Would not that question of indifference be wholly obviated if the municipalities in the first instance had the right to prescribe the service, the places where new construction should be extended, and so on, with the right of appeal from the aggrieved party to the State?

Mr. COUZENS. That might have solved the actual putting in of the extension, but deeper than that is under what terms and conditions will these extensions be built—whether they will be built for indefinite use, for an indefinite term, or whether the return shall be what the company thinks it ought to be, or what the municipality thinks it ought to be.

The CHAIRMAN. I concede the presence of difficulties; but suppose you had an indeterminate permit, with the final right of the city to purchase the plant at a value to be fixed by the State, and also including these other regulatory features which I have described; would that afford a fair solution?

Mr. COUZENS. No, sir; it would not afford a fair solution because if, for example, 35 cents per hour for a workman in 1914 was a satisfactory wage, and he is now getting 60 cents per hour, then by what reasoning do you figure that 6 per cent on an investment in 1914 is a fair return in 1919? In other words, if you are going to assume that this service-at-cost basis is a solution—

The CHAIRMAN. I have not suggested the service-at-cost basis, and your answer is not germane to my question.

Mr. COUZENS. It is as I understood your question. If you will repeat it, I will try to answer it.

(The reporter repeated the question as above recorded.)

Mr. COUZENS. I might ask what are the other regulatory conditions?

The CHAIRMAN. The ones which I have described: The city to fix the rates, in the first instance, to control the service, and declare

where extensions should be, subject to the right of appeal to the State commission.

Mr. COUZENS. After you have said that, however, I ask under what terms these extensions would be built? That would all enter into it, naturally.

The CHAIRMAN. I said that could all be taken care of by the granting of an indeterminate permit, giving the city the right to purchase upon a value fixed by the State.

Mr. COUZENS. But this indeterminate permit must fix the returns upon the investments.

The CHAIRMAN. Not necessarily.

Mr. COUZENS. How is the company going to complete these extensions if they can not raise the money? What return are you going to give them on it, if they do raise the money?

The CHAIRMAN. In the indeterminate franchise, as I understand it, the return upon capital is not fixed. You are mixing up, I believe, the cost-of-service plan at Cleveland with the indeterminate permit franchise.

Mr. COUZENS. Not exactly that; because I contend now that the indeterminate franchise must have, in being granted—must have in mind a return for the company. Now that is what I want to know—what you will have in that indeterminate franchise.

The CHAIRMAN. Accepting your suggestion for a moment, suppose you put in a return of 6 per cent.

Mr. COUZENS. Yes.

The CHAIRMAN. Leaving the question to arbitration as to whether the rate of return should be higher or lower, as conditions change.

Mr. COUZENS. That does not enter into it, you see, if we had municipal ownership and operation.

The CHAIRMAN. I am getting away from municipal ownership and operation. I am trying to find out what you think of the plan I have suggested.

Mr. COUZENS. I don't think anything of the plan that you have suggested, because you will have the everlasting turmoil and row that we are having now; because we will never agree upon arbitrators, if you please. We have gone through all this. I have been a member of the board of arbitration, and we have fought for a long time to agree upon the arbitrators. We have gone through another one, and we have had some difficulty in agreeing upon an arbitrator. We do not even know then, when that is settled, whether the public are going to be dissatisfied. That is a step which the people have not consented to by vote, but only their officers have consented to. As long as our constitution and charter is as it is, we have to submit these propositions to the people.

The CHAIRMAN. Of course, you have not testified directly about the cost-of-service plan, but in the study of the question you must have given a good deal of thought to that?

Mr. COUZENS. I have, sir; yes.

The CHAIRMAN. The Secretary of War was before us yesterday and described with great minuteness the plan they have in Cleveland, and pointed to the results of that plan, even during this abnormal period. What is your judgment about the cost-of-service plan?

Mr. COUZENS. My own judgment about the cost-of-service plan is that you eliminate all the desire for the company to perform the service on an efficient and economical basis. You take away all the reward.

The CHAIRMAN. Does the experience in Cleveland or Cincinnati justify that assertion?

Mr. COUZENS. The street-railway commissioner, Mr. Sanders, of Cleveland, tells me yes. I have only his statement. He has been on the job for some time, and he says that the plan is not by any means a satisfactory plan.

The CHAIRMAN. Has he told you that recently?

Mr. COUZENS. Yes; within a month.

Commissioner GADSDEN. He wants to amend the Cleveland plan by putting in an incentive. Otherwise he thinks the plan good?

Mr. COUZENS. He did not say that to me. He said he wanted municipal ownership and operation.

Commissioner SWEET. That is what Secretary Baker said—he would like to have it amended in that respect.

Mr. WARREN. To put in an inducement?

Commissioner SWEET. To put in an inducement for efficiency on the part of the company?

Mr. WARREN. Yes; but not for municipal ownership.

Commissioner SWEET. No.

Mr. WARREN. The mayor just said that Mr. Sanders wanted municipal ownership.

Commissioner SWEET. I understand.

Mr. COUZENS. Yes; that is a two-edged sword.

If you will permit me to be personal for a moment—when I was general manager of the Ford Motor Co. I devised a plan of taking our 45 branch houses and giving the managers of these branch houses a percentage of the profit; and I just carried it one year when I found a disposition on the part of the managers to rob the customers. In other words, the manager wanted to get everything he could out of the customer at all times. He did not want to be generous with them; he wanted to dispute whether a part was defective or whether it was not defective, and we found a great deal of discontent among all of the customers throughout the country because of the disposition on the part of the managers to boost their profits so as to get their percentage of the profits. Therefore, we abandoned that plan. That is a two-edged sword. The manager was trying to be overefficient so as to get a bigger percentage for himself to the detriment of the customers. So we decided that we would regulate the service to the customers and all he would have to do was to sell the goods. So that if you put an incentive into this cost-plus plan the disposition on the part of the management then is to curtail the service, to fight the service, to fight every expenditure, so as to make more money for themselves.

The CHAIRMAN. Let us assume that Detroit can not have municipal ownership—

Mr. COUZENS. I am not willing to assume it. You may.

The CHAIRMAN. Just for the purposes of this question. You know the local sentiment, and I want to develop your thought.

Let us assume that Detroit can not have municipal ownership. Then what is the best solution of your problem? What is your best thought on that?

Mr. COUZENS. I have set out to get municipal ownership and operation, and I am not thinking along any other line.

The CHAIRMAN. Oh, but you must have some ideas about the regulation that should be had in the public interest in the absence of municipal ownership?

Mr. COUZENS. There is no plan that I can think of involving a deal with the company or an arrangement with the company that would be favorably voted upon by the people of Detroit.

The CHAIRMAN. State regulation does not mean an agreement with the company, does it?

Mr. COUZENS. Oh, yes.

The CHAIRMAN. How so? You present your facts to the commission and it decides the question. You put your evidence in and they decide what the rates shall be and what the service shall be and what the extensions shall be, and they prescribe the depreciation and the—

Mr. COUZENS. The city would not stand for that. The people, by vote, could not stand for that. The city wants home rule.

The CHAIRMAN. If you can not have home rule, then will this other plan be satisfactory?

Mr. COUZENS. I do not think the people have given up the idea of having home rule.

The CHAIRMAN. Perhaps not in your case; but we are dealing with a big problem, nation-wide.

Mr. COUZENS. I mean that nation-wide problem is to be approached from the angle of social interest, as a social viewpoint. That is what I am trying to get across with you, and—

The CHAIRMAN. I clearly understand your viewpoint.

Mr. COUZENS. And that we must, and that you men can possibly help, I believe—depending upon the thought and consideration that you give to this question—that great stress may be laid upon this throughout the entire country; and I want you honestly to think of it as a social subject, and that these social problems can only be solved properly by the people themselves.

We have just gone through a big campaign there—I say we have *just* gone through a big campaign; it was some few years ago—to get a public recreation commission, recognizing the great social value that it would have to the community.

I believe Detroit has spent more money probably—I know that it has spent more money per capita than any other city in the country for recreation for its citizens. Men who have no children, old bachelors, and old folks, who have no interest in recreation, are paying taxes to maintain a recreation commission for the benefit of all the community; and if we are progressing along certain lines to that extent, where we believe in providing at public expense proper recreation for our children and for our children's parents—because we are doing it, and particularly among the foreigners—then I say is not the transportation of these citizens in comfort and in decency as great a social problem as the question of recreation or any other activity that the municipality may engage in?

The CHAIRMAN. The evidence before this commission thus far shows that a great many plants throughout the country are in the hands of receivers and a number of others are bordering on that condition, and a good many are having great difficulty to maintain operating expenses and fixed charges, although their fares have been increased from 5 to 6 and 7 cents. In view of that general statement, what can this commission do now to relieve this present situation?

Mr. COUZENS. If the companies are not honestly capitalized then the receiver should sell them out at the best price under the hammer. Then you would get a price which the returns could be possibly made on. If the relation between operating expenses and revenue is only considered and no return on the investment, of course, that does not enter into it. But where the city itself, the community itself, does not warrant municipal ownership and operation, then I see no alternative than to relieve the companies in those communities of some of the municipal charges, probably in the way of—

The CHAIRMAN. Which would be what?

Mr. COUZENS. Taxes, possibly, or special percentages on gross revenues, or some of the many other devices which have been created to tax public-utility companies.

The CHAIRMAN. Then, is it your feeling that, as an emergency solution, the commission might wisely recommend that where necessary the communities should eliminate taxation, paving, and other assessments?

Mr. COUZENS. If the community would satisfy itself in advance that the elimination of those charges went back to the community itself in the way of fares or improved service, yes.

Commissioner SWEET. This contention between the D. U. R.—that is the name of the company, is it not, the Detroit United Railways?

Mr. COUZENS. Yes.

Commissioner SWEET. And the city is of very long standing, is it not?

Mr. COUZENS. Yes.

Commissioner SWEET. My home city is Grand Rapids; and I have been quite familiar with the Detroit situation for a good many years, although I can not remember just when it started. I know that a good many years ago—I think, before George Todd's time as mayor—and I know during that period there was quite an acute question between the city and the company. I personally do not know of any city in the United States where there has been so much feeling between the community and the company as in Detroit; do you?

Mr. COUZENS. I concur in your conclusions, sir.

Commissioner SWEET. I think I know about what it is. For that reason, Mr. Mayor, I have a sort of impression that your problem is not a typical one for the other communities of the United States. Do you think it is?

Mr. COUZENS. Not the details of it, Mr. Sweet. It is not the problem of all the communities, but the social problem, the question of proper service, the question of proper extensions is as much applicable to Pittsburgh or to any other city as it is to Detroit, and you only have to patronize the cars at certain hours of the day and the service in a thinly populated section to realize that it is as much a problem for every city as it is for Detroit. There may not be so much hatred engendered as there is between Detroit and the company.

Commissioner SWEET. The general principles you think extend throughout all the communities practically?

Mr. COUZENS. Absolutely; yes.

Commissioner SWEET. You have spoken of these rather peculiar votes that have been taken in Detroit, where it seemed to be a little difficult to arrive at the reasons for the people apparently wanting municipal ownership and still at the same time not wanting it, or some of their votes have seemed to be inconsistent with others. Is not that so?

Mr. COUZENS. That is true; yes, sir.

Commissioner SWEET. It made me think of a situation that you had in Detroit, if I recall, in connection with your board of education. I do not know whether you remember it or not, but some of the citizens of Detroit prepared a plan for a board of education by which there would be five members of the board elected at large. That plan was sent by a committee of Detroit citizens to various cities of the United States. It was adopted in Indianapolis almost word for word and worked admirably. The people of Detroit voted on the Detroit plan and voted it down. I do not know what your system is now. Are you electing your board of education at large?

Mr. COUZENS. Yes; we have a board of seven instead of five, elected at large.

Commissioner SWEET. But until comparatively recently you elected them by wards and had a very large number?

Mr. COUZENS. Yes.

Commissioner SWEET. And the general feeling throughout the State was that there was a good deal of corruption in the Detroit Board of Education; is not that true?

Mr. COUZENS. That was the general impression, and I guess there was some foundation for the impression, and that was true.

Commissioner SWEET. Is it not a fact that the publishers of textbooks found means of getting their books introduced into Detroit through bribery or indirection of some kind?

Mr. COUZENS. I could not say as to that. I only have a general impression that that was the feeling.

Commissioner SWEET. I knew in Grand Rapids we adopted the plan of a board elected at large long before you did, and I recollect once I was asked to come there, and did go, to discuss the question of how Grand Rapids had solved the school-board problem. But it seems to me that the people of Detroit, although exceedingly fine people in a great many ways, are rather inclined to be pugnacious and a little difficult to handle in some ways, and I think you as mayor have got a rather hard job on your hands. I am mighty glad you have taken it, however. You are a business man's mayor, are you not? You were elected by—

Mr. COUZENS. I was called at a nonpartisan election.

Commissioner SWEET. Which was absolutely right in principle. This matter of home rule that you have spoken of in the adoption of our State constitution—I helped that along all I possibly could.

Mr. COUZENS. For which Detroit is thankful, because we needed it.

Commissioner SWEET. That was while I was mayor of Grand Rapids, or a little afterwards, but we voted to adopt a nonpartisan plan of election—perhaps you recollect our officials and the State

legislature prevented us from amending our charter as we wanted to in order to elect our own officials in our own way. We had something to do with getting this measure into the constitution. Now, without going into the details of the matter, let me ask you if you are not willing to admit that your view of the general situation is somewhat tintured by the special problem that you have there in Detroit?

Mr. COUZENS. Why, I must admit that that is where my experience has taken place, of course, and you gentlemen probably, who are unbiased judges, are better able to determine that than I am.

Commissioner SWEET. There never has been any cooperation between the people of Detroit and the D. U. R., has there?

Mr. COUZENS. No, sir.

Commissioner SWEET. There has been a continuous fight and scrap for many years.

Mr. COUZENS. But it requires two persons to cooperate, does it not?

Commissioner SWEET. Yes; and two to fight.

Mr. COUZENS. Yes.

Commissioner SWEET. And in this case they have been fighting.

Mr. COUZENS. And if the company would never live up to a single promise it made, never carried out a single improvement or lived up to a single ordinance without a fight, what would be the disposition of the people naturally?

Commissioner SWEET. I am not criticizing the people.

Mr. COUZENS. Well, you said we were pugnacious, and probably that is so.

Commissioner SWEET. Well, pugnacious due to the treatment you think you have received and perhaps you might say that you have received. I am not trying to fix the blame, but the point I am trying to direct your mind to is that the Detroit situation has involved a continuous running warfare, you might say, for many years that has not existed in a great many of the cities of the United States.

Mr. COUZENS. I think that is true.

Commissioner SWEET. If there had been a company there that was disposed to do what the people regarded as right and there had been a proper cooperation between the company and the citizens the feeling would be entirely different from what it is now, would it not?

Mr. COUZENS. Of antipathy to the company; yes—

Commissioner SWEET. That would never have existed.

Mr. COUZENS. That would never have existed.

Commissioner SWEET. So I am not altogether sure that the opinion of a person who has based his judgment largely upon Detroit can be taken justly and fairly with regard to the general average of cities throughout the country. Certainly the feeling of the people in Cleveland toward the railroad company is entirely different from what it is in Detroit.

Mr. COUZENS. I believe it is a great deal different; yes.

Commissioner SWEET. You know there has been a great deal of cooperation there resulting probably from Tom Johnson's efforts in the education of the people, as Secretary Baker puts it; is not that true?

Mr. COUZENS. That is probably true.

Commissioner SWEET. So that although they are cities of somewhere near the same size—at least they have been rather rivals, have they not, in the way of population?

Mr. COUZENS. Cleveland and Detroit?

Commissioner SWEET. Yes.

Mr. COUZENS. But you see Cleveland is having a row; they have had a strike and they are now rowing about the returns they should get. They ask 7 per cent instead of 6 per cent. They pay 6 per cent above operating expenses. Why do they have to do that? The city maintains a commission with a large number of employees to regulate a private company. Why not regulate its own company? Why have to have it a private company if you are going to regulate it? I can not see any reason for going around the corner to accomplish the same end. Now, you may say the situation may not be so acute in Cleveland and other communities as it is in Detroit. That is true. But we have scientists all over the country studying cancer, whether we have cancer or not, do we not? We do not wait until all the people get cancer before we start to prepare and get a remedy for it. I say Detroit has street-railway cancer and we are trying to solve the problem, which, if solved, will be as much benefit to the country as a whole as the scientists will be if they study the subject of cancer and cure it and do not wait until the people get it. So you do not have to wait until you have street-caritis, or whatever you want to call it, before you find a cure.

The CHAIRMAN. You want to cure the cancer by swallowing it?

Mr. COUZENS. No; I am trying to take it out of the community; remove it entirely by an operation.

Commissioner SWEET. Of course, you understand, in asking these questions we are not taking the position that municipal ownership or operation is necessarily wrong, but we want to get your reasons and the ground for it.

Mr. COUZENS. I am very glad to give you them, sir.

Commissioner SWEET. Now, I am perfectly frank to say to you that I have believed for a long time that Detroit ought to have the right to own and the right to operate, but my judgment has been that the right to operate could be used to prevent collusion on the part of the private corporation or private corporations in bidding, for instance, upon the rental of the street-railroad system. I have thought the city ought to own its own tracks, and if it could get proper service upon a fair basis from a private corporation, they would get better results than they would to operate the road themselves. Let me ask you this: All the cities, practically, of Michigan, or nearly all of them, have their own water plants, have they not?

Mr. COUZENS. I think so.

Commissioner SWEET. You have spoken of that in Detroit?

Mr. COUZENS. Yes.

Commissioner SWEET. Has your attention been called to the fact that only comparatively few people are required for the operation of a water plant? Some of them have their own lighting plants and some do commercial lighting and some simply furnish lights for the streets and city buildings. Does it seem to you that the number of people employed in operating a street railroad, and the possible political influence that becomes a serious objection to the operation of a street railroad, where it might not apply to a water plant or lighting plant?

Mr. COUZENS. Under our form of ballot I do not see how that has a weight at all, because, in the first instance, we have civil service, and, in the next place, no public officer knows whether his men—or the men working under his administration—are going to vote for him or not. He makes just as many enemies among his employees as he does friends. I was commissioner of police for two years, and I believe, and have reason to believe, that fully as many policemen voted against me for mayor as voted for me.

The CHAIRMAN. Maybe you were too strict.

Commissioner SWEET. Do you not recognize the fact that there are two kinds of officials? There is the official who, when a question comes up between his personal interests and public interests, always decides for the public interest. I will guarantee that that is what you would do. But do you not know just as well as I do, and every man of experience, that there are a great many more of the other kind of officials than there are of that kind?

Mr. COUZENS. You are working on the theory that we are never making any improvement.

Commissioner SWEET. I am working on the theory that human nature is pretty nearly the same the world over, and was away back in the time of Christ as it is to-day.

Mr. COUZENS. And there has been no improvement?

Commissioner SWEET. Yes; there have been improvements, but at the same time there are a great many selfish politicians who, when there is a conflict between their interests and the interests of the public will decide every time for themselves; is not that true?

Mr. COUZENS. Yes; but when you consider that these employees of the transportation companies come in contact with the citizens three hundred and fifty to four hundred million times a year, do you suppose the citizenship—and we now have women and girls voting, which will make it more incumbent upon us to give a more decent administration than ever before—don't you think they are going to demand that they have that kind of men in office? If they get bad service from the employees of the public-service company, who come in contact with them three hundred and fifty or four hundred million times a year, which is the number of people we carry in Detroit, don't you believe they are going to require a better type of officer, don't you believe they will take a greater interest in their municipal officials? I may use an analogous case. You in your own home do not care who collects the garbage or brings the ice or the groceries, but you are very much interested in who waits on your table or who the nurse is that takes care of your child. There is a personal contact there that is absolutely necessary, in my judgment, for proper municipal ownership and operation or proper municipal government, and we do not get it because of the few employees you refer to in the water works, who do not come in contact with the citizen. Every morning he gets up and turns on the water and the water runs and his bath runs and the faucet runs, and he does not care anything about who is keeping the water there. Every day the sewage is carried away, he does not care anything about who the officials are that provide all these facilities. Every night he goes on the street the lights are lit, he does not care who turns the lights on, they are lit. Municipal government may be

wrong in some places, but there is a lot of it that is good, because there is a lot of it they do not ever think about. The thing you make the fuss about all the time is that which you come in contact with all the time, and the thing you come in contact with all the time will be the kind of street-car service you get, the kind of employees you have, whether they are polite and gentlemanly or insolent. That will be the determining factor in the control you will get, and you will never get that until the employees come in contact with the citizens.

Commissioner SWEET. Have you not omitted the most important point of it all—and that is the business handling of a great industry, that of transportation in your city, and if that is not controlled and handled by men of intellect, men of experience and men of ability, that it is going to impose upon your whole community a tremendous taxation that ought to be avoided and could be under some other form of management? Is not that true?

Mr. COUZENS. But my contention is that the citizens will demand that kind of administration if they know, if they come in contact with it frequently enough.

Commissioner SWEET. They might demand courteous conductors and motormen but—

Mr. COUZENS. Oh, no.

Commissioner SWEET. But the probability is they are the ones they come in contact with.

Mr. COUZENS. And the amount of cars and the condition of cleanliness and the frequency of the cars; that is the reason it is a social problem. It is so much a part of our social urban community that you hear a terrible furor. If a strike happens and it stops traffic, it is the greatest matter of interest, showing it is purely a social matter. It does not matter so much if it is a private plan, there are a dozen private plants on strike, but if a street-car company goes on strike it is carried by the Associated Press all over the country.

Commissioner SWEET. Your idea would be that if there is a deficit, it would be paid for by general taxation. Is that right?

Mr. COUZENS. Above a reasonable amount, yes, for fares. I have not yet reached the social question of advocating free rides.

Commissioner SWEET. I am saying now on what you would regard as a fair amount of compensation that the companies should receive for those who use the street-cars, say a nickel, if that proved insufficient to meet the requirements—that is, pay the operating expenses, all necessary replacements and extensions and a fair interest upon the investment, such interest as the city would have to pay, say on the money it borrowed to put into the enterprise, that if it failed to meet that requirement and there was a deficiency—that deficiency should be met by the entire population or the taxpaying part of the population.

Mr. COUZENS. Yes.

Commissioner SWEET. No matter what it might be.

Mr. COUZENS. Yes.

Commissioner SWEET. Of course—

Mr. COUZENS. I want to say, however, in admitting that, that I do not admit, however, that it is necessary under municipal operation to have a deficit any more than there is in private ownership.

I am satisfied that had the city of Detroit purchased the lines in April of this year, when it voted on it, that we would have been able to maintain the lines—outside of extensions, of course, which is capital investment—on a 5-cent fare.

Commissioner SWEET. I understand your position, but you will admit, I think, that under present conditions with wages, we will say, at 60 cents an hour, and materials almost double what they were five years ago, that there might be a deficiency.

Mr. COUZENS. That is true, but here the company itself only seven years ago offered 2½-cent fare and they are getting 100 per cent increase now. The company itself was giving eight tickets for a quarter on part of its lines and offered eight for a quarter in 1912, and in 1906 and 1907, I think it was, offered a 2½-cent fare, and now they are getting 5 cents; so they have not been without increase in revenue.

Commissioner SWEET. I am not saying anything at all now about the financial situation of the company as it is being operated, but I am simply suggesting that the conditions that have occurred, somewhat unexpectedly in this country, and such as may occur hereafter might produce a deficiency; and of course you would not deny that.

Mr. COUZENS. That is true.

Commissioner SWEET. And I am trying to look forward to the way in which that would be met. If I understood you right, that would be by general taxation.

Mr. COUZENS. Well, that must be qualified to the extent that, if wages and everything went up, that I would not say that the fare would have to be stationary forever. Now, the Cleveland plan went from 3 cents to 6 cents. I do not say that some of the increase in the increased cost of operation would not have to be taken care of by an increased fare. I could not say you would have to maintain the fare of 1914 in 1919.

Commissioner SWEET. But in spite of all that you might do, if you were running the road as a city proposition, in the way of raising fares, you do not deny but what you might reach a point where you could not raise enough money to pay all the expenses, including the interest upon the investment, so that there would be a deficiency to be met in some way?

Mr. COUZENS. Absolutely.

Commissioner SWEET. And if there was that ought to be met, I understand you to say, by general taxation?

Mr. COUZENS. Yes; or probably if there had been much put in the way of extension of operating lines that are not self-sustaining of themselves, upon the property benefited.

Commissioner SWEET. If a street-railroad company owned and operated by a private corporation were to receive the help of the general public, if there was a real spirit of cooperation, the paving between the tracks and a little outside being removed and a lot of these other burdens resting upon them in the way of taxation were removed, do you not think at the present time the street-railway situation in the United States would be quite different from what it is to-day?

Mr. COUZENS. I do not think so, because the companies would still be wanting more, because somebody else got more. You know the

psychology of that thing. If you raise one man's income, another wants his raised; and if the going is good and everybody is grabbing off a piece, the company would be in demanding theirs.

Mr. WARREN. Do you mean the company or the employees?

Mr. COUZENS. No; the company. If it was carrying traffic for 5 cents in 1914 and there was a net profit of $1\frac{1}{2}$ or 2 cents, and when in 1919 it got down so there was only half a cent, they would be in for more money so as to get their $1\frac{1}{2}$ or 2 cents, as the case may be, the same as everybody else who wants an increase in revenue in proportion to the value of the dollar.

Commissioner SWEET. But would you not admit that under such regulation as that which they have in Cleveland, Cincinnati, and many other cities where the companies have been compelled to lay their cards on the table, so to speak—where public accountants have examined their books and know exactly how they stand financially, what their obligations are, and what their income is, and what their expenditures are, and really have a control over their expenditures as they have in Cleveland and in Cincinnati—would you not admit that no matter how greedy the officials of the company might be that they would not have the power to do what you say; that they would be limited?

Mr. COUZENS. Well, they are arbitrating for 7 per cent now. They want 7 per cent now; and that is not an unnatural thing.

Commissioner SWEET. Not at all. You mean, so that they may pay 7 per cent upon their bonds?

Mr. COUZENS. Yes; upon their stock.

Commissioner SWEET. On their stock or on their bonds?

Mr. COUZENS. On their stock.

Mr. WARREN. That is at Cleveland?

Mr. COUZENS. That is Cleveland.

Commissioner SWEET. They have no bonds to speak of in Cleveland?

Mr. COUZENS. No; not many.

Mr. WARREN. They claim they could not float additional stock at 6 per cent.

Commissioner SWEET. But, of course, you recognize on account of extensions, and so forth, it is necessary that the company should be able to raise additional money from time to time? Now, then, if the money market is such that money can not be raised without paying 7 per cent for it, is there anything unreasonable in that?

Mr. COUZENS. You are leading right to the question of municipal ownership, because municipalities are not affected to the same degree by the money market, they do not have to pay any underwriting, they do not have to pay any brokerage fees, they do not have to pay any marketing fees to the same extent. Detroit is getting its money for less than $4\frac{1}{2}$ per cent. Cleveland wants 7 per cent for their street-railway lines. So, allowing for some inefficiency, if you determine there is some inefficiency in municipal operation, we still have a cushion between 7 per cent, which the Cleveland people want, and $4\frac{1}{2}$ or 4.3 per cent that Detroit can get its money for.

Commissioner BEALL. Except this, that any city that borrowed enough to pay for the street-railway system would so largely increase its debt limit, if it increased its own bonds for the purpose,

and if it did not it could not get the low rate you speak of, that if the city of Detroit bought the Detroit United Railways, it could not sell its bonds on the same interest basis it does to-day.

Mr. COUZENS. That is not true of other cities who have a much larger bonded indebtedness than Detroit—take New Orleans or San Francisco.

Commissioner BEALL. I would not agree with you. I do not think any bond house in this country would agree with that statement.

Mr. COUZENS. Well, it is a question of fact.

Commissioner BEALL. I do not say you could not borrow it cheaper than private companies, but I say you would have to pay a good deal more.

Mr. COUZENS. I say that you would not have to pay a good deal more. We might have to pay a little more. Take New Orleans and San Francisco with their bonded indebtedness; they do not pay much more than Detroit with its little bonded indebtedness.

Commissioner BEALL. It pays more.

Mr. COUZENS. Yes; but not a great deal more.

Mr. WARREN. A letter was read from the mayor of Seattle stating that the utility bonds issued there carried 5 per cent interest, I think.

Mr. COUZENS. Yes; I understood that.

Commissioner BEALL. They do, and you could not sell them to-day.

Commissioner SWEET. If it were deemed a matter of vital importance that money should be borrowed for street-railway purposes at as low a rate as possible, could not that be accomplished by the municipality guaranteeing the bonds of the street-railroad company if it wanted to?

Mr. COUZENS. It could; yes.

Commissioner SWEET. And get it at as low a rate as the municipality could?

Mr. COUZENS. Well, I do not think a guaranteed bond is quite as good as a straight obligation.

Commissioner SWEET. But approximately at as low a rate.

Mr. COUZENS. There is some difference.

Commissioner BEALL. There could not be any who would do it unless by law they could make that bond good by municipal taxes, and if you do that you are extending the credit and might as well issue your own bonds.

Commissioner SWEET. Yes; it would amount to practically the same thing.

Mr. COUZENS. There is not any way—you can start off on all kinds of roads but you will come back to the question that the municipality itself can operate its system. Even if it costs a little more, it is much more satisfactory to the citizens. I still contend that government is organized for the benefit and for the service and convenience of all the people. It is not so much the question of one-eighth or one-quarter per cent on your bonds as it is to give the people what they ought to have; and they ought to have it.

Commissioner SWEET. What you have told us is very interesting.

Mr. COUZENS. I am afraid it is nothing new.

Commissioner SWEET. And I think we all feel very grateful to you for coming here and giving us your views.

Mr. COUZENS. Thank you.

Commissioner BEALL. I want to ask the mayor a question just for our information, you understand—this is only for information. Is it true that in Detroit you have had lower fares on the average for quite a number of years past than most of the cities of approximately the same size?

Mr. COUZENS. I could not answer that. I think it is true in the last two years.

Commissioner BEALL. I think that is true.

Mr. COUZENS. I think it is true in the last two years.

Commissioner BEALL. I am just asking this for information. Does not the company contend that it is an unusual situation, that they make good money out of their interurban lines that has enabled them to carry the city proposition?

Mr. COUZENS. Do you say they make that statement?

Commissioner BEALL. I think they do.

Mr. COUZENS. I could not say. I know they have asked for more money on some of the interurban lines.

Commissioner BEALL. Are you able to say whether that is true or not? I have understood it was true that the surface fares they were getting in Detroit did not bring a proper return on the money which had been put in the property, and the reason they were able to pay their fixed charges was because they were very fortunate, unlike most similar companies, in making real money out of their interurban roads. As a rule, they are unprofitable, but in their case they are profitable. Do you know whether that is so or not?

Mr. COUZENS. I could not be sure whether they have made that specific statement or not. A representative of the company is here and can tell you. I know they claim they do not make enough off of their city lines, although in making their statement to us for the year 1919, figuring no return except interest on bonds, they showed only a very small deficit, even of the completed year.

Commissioner BEALL. If that be true—I do not know that it is, mind you—that would be one thing you would have to contend with in municipal ownership. You could not give the same service they are giving at the same rate of fare unless you had a deficit which you could pay out of general taxes or in such way as you deemed best. I have no ulterior motive in asking this. I am just asking for information.

Mr. COUZENS. I understand.

Commissioner BEALL. And I do not know that that is true.

Mr. COUZENS. Well, I do not know just what the results under the operation of the present fare will be. They do not know. They are guessing at it and we are guessing at it. They have had the new fare since the last street-car strike, and we do not know just what results we will get.

Commissioner BEALL. I was speaking of the time before their increased fare, whether they were not really running at a loss and making it up on their interurban lines.

Mr. COUZENS. No; they were not. Their figures do not show that. You asked if they claimed it. I do not know whether they have or not, but their figures show they did not.

Commissioner BEALL. Have you any figures as to municipal ownership, or it is rather evolved from your own mind?

Mr. COUZENS. I have a great deal of information in regard to street railways in Europe, but not in this country, because it has been tried only in a very few cases, and the most outstanding one is San Francisco, where it has been satisfactory.

Commissioner BEALL. The European companies are operating on the zone system; are they not?

Mr. COUZENS. Yes.

Commissioner BEALL. Is not the municipal street railway in San Francisco a comparatively short line and operating in dense streets where they get dense traffic? You could not apply the results they would obtain if they were operating the whole city system.

Mr. COUZENS. I think we could because they have competition, and if the city owned all the lines they would not have competition.

Commissioner BEALL. But have they any competition in the sense you speak of? They have lines only on short streets with dense hauls and a great deal of traffic, and is it not true since they have made a few extensions it has pulled their profitable operation down quite a little?

Mr. COUZENS. Their chief engineer, who was in Detroit recently, said they had competition on Market Street where they paralleled each other.

Commissioner BEALL. But that is the best street in the city.

Mr. COUZENS. Well, I can not tell on a theoretical basis what the result would be. You are talking about a theoretical condition.

Commissioner BEALL. You know in Detroit there might be certain streets where two lines would pay for a certain distance, but you undoubtedly do know there are certain other streets where two lines will not pay.

Mr. COUZENS. But you asked what it is paying in San Francisco? I do not know.

Commissioner BEALL. But you could not meet the situation for the whole city on a few short streets, could you?

Mr. COUZENS. I am not saying that they could, but I am not guessing at it because I do not know.

Commissioner SWEET. The zone system exists in Europe a good deal, does it not?

Mr. COUZENS. Yes.

Commissioner SWEET. Are you in favor of the zone system?

Mr. COUZENS. I would not like to say offhand. Under certain circumstances I would be in favor of it. Under some system of not too short zones I might be in favor of it.

Commissioner SWEET. Would not the zone system operate against your sociological considerations?

Mr. COUZENS. Well, they claim not. I was talking—and I am talking out of mouth here, without knowing the facts, or giving any close study to it—but there was a man called on me from the American Electrical Journal—I think his name was Mr. Jackson—who has just returned from Europe, when he returned a month or so ago, and he said it did not operate that way.

The CHAIRMAN. He will testify before us in a few days.

Mr. COUZENS. Well, this may be subject to correction—but he said the zone system did not operate for the congestion of the center districts, much to his surprise.

Commissioner SWEET. Would not your own judgment tell you that if people living in the suburbs or out maybe 8 or 10 miles from Detroit, could get into Detroit by paying a 5-cent fare, that more people would live in these localities than if they had to pay, we will say, 10 cents?

Mr. COUZENS. That is my judgment; yes.

Commissioner SWEET. It would look that way.

Mr. COUZENS. Yes. You asked me from my sociological point of view whether or not I would agree with that; and I should say that, offhand, theoretically it would be that you should have one fare, so as to invite the people out into the country; but I am deferring now a conclusion on that point until I really have some definite information, because I was only talking theoretically.

The CHAIRMAN. We are very much obliged to you.

Mr. WARREN. May I ask one or two questions?

Mr. Mayor, as I understand your meaning of this being a social question, it is something like this, that the street transportation of a city is a matter of such vital public importance, vital to the health and the development of the city and prosperity of the people that it ought to be furnished at cost where it can be; but if that cost reaches a point so high that it lessens the general use of the utility, then it ought to be furnished in excess of that price by the public.

Mr. COUZENS. Yes.

Mr. WARREN. Very much as sewer, water, schools, and other things of that sort are furnished. That is the social aspect of it.

Mr. COUZENS. That is the social aspect of it. In other words, a street-railroad line is the same as a street—it is really an additional street, and when you extend streets out into the community for people to live in and extend water and sewers, why are not they entitled to a ride just the same as those who live in the congested portions are getting a ride?

Mr. WARREN. Except that you are not prepared yet to make street-railway transportation free in the same way that the highway has been made free. The street railway now, in your mind, is in the position of the old toll roads where a toll is charged, but you do not want that toll so high as to interfere with the free movement of the people over that highway?

Mr. COUZENS. That is substantially correct. In a few years I might reach the conclusion, after experience, that I would favor free rides.

Mr. WARREN. I have heard people favor that. But you do not think the time is ripe for that yet?

Mr. COUZENS. I do not want to jump at that yet. I want to walk before I ride. I think that is why Detroit—I think somebody should start municipal ownership and operation of these urban lines so as to teach the lines what a great social question it is and that it can be done and must be done before it is solved.

Mr. WARREN. And if it can not be done at the expense of the car rider except by restricting his use of it, then it must be done in part at least at the expense of the general public, however that expense may be distributed over the general public. Is that right, substantially?

Mr. COUZENS. That is substantially correct.

Mr. WARREN. That is, in a rough way the taxpayer must help out the car rider if the cost reaches a point where the car rider can not afford to meet it without.

Mr. COUZENS. On the same assumption, if a factory can not get its help, as it can not when there is a strike on, it sends and gets its help and brings them to the plant and hauls them home. It recognizes, does it not—

Mr. WARREN. Yes.

Mr. COUZENS. That the transportation is indispensable to its whole existence; therefore it pays for it.

Mr. WARREN. And you think that the community as a whole is in that same position?

Mr. COUZENS. Is getting there.

Mr. WARREN. Is getting there?

Mr. COUZENS. Yes.

Mr. WARREN. And, as I understood you further, if the situation has developed, whatever may be the reason, so that the cost of the service threatens to become greater than the car rider can meet, the public in some way must bear a part of that burden, and you believe the only way the public would be satisfied to bear it would be under some form of municipal ownership?

Mr. COUZENS. Absolutely; I know they will never agree to turn it over to private persons.

Mr. WARREN. If it has got to be subsidized or helped out at the public expense?

Mr. COUZENS. Yes.

Mr. WARREN. Now, Mr. Mayor, this recent proposition which you mentioned as having been voted down at Detroit for municipal ownership of the street railways was at a price of \$31,500,000, I think you said?

Mr. COUZENS. Yes.

Mr. WARREN. Was that price reached after some sort of valuation of the property?

Mr. COUZENS. It was reached after considering a number of valuations made by a number of different concerns, and it was a compromise price.

Mr. WARREN. Did the city have some valuation made?

Mr. COUZENS. The city had some figures made by Barclay, Parsons & Clapp, some year and six months, I think, or a year previous to that.

Mr. WARREN. Do you recollect what that was?

Mr. COUZENS. Roughly, I think it was somewhere about \$27,000,000.

Mr. WARREN. You do not think it was \$30,000,000?

Mr. COUZENS. Oh, no.

Mr. WARREN. I had an impression it was \$30,000,000.

Mr. COUZENS. No. If I remember correctly, it was about \$27,000,000.

Mr. WARREN. You spoke of your solution of the trouble in Detroit as being this, if I caught your testimony correctly, that all these lapsed franchises, expired franchises which represented, roughly, three-quarters of all in the city—that was right, was it not, three-quarters—

Mr. COUZENS. Yes.

Mr. WARREN. You would order the tracks up?

Mr. COUZENS. Yes.

Mr. WARREN. And then begin operation by the city?

Mr. COUZENS. Yes.

Mr. WARREN. I suppose you had in mind that you would begin operations by the city on the tracks which the city had ordered to be taken up.

Mr. COUZENS. That would depend upon the attitude of the company. If the company should say to the city, "We can not afford to take those tracks up and replace the pavement as ordered by the supreme court. We therefore will offer you the rails at a price which may be a little more than we could get out of them for scrap and less than the city would have to pay for new rails"—in other words, it would then seem to me a question for negotiation as to whether the company would actually go ahead and take up its tracks and replace the pavement or sell to the city.

Mr. WARREN. But your idea is that the city would get them approximately at the scrap value?

Mr. COUZENS. Approximately; yes.

Mr. WARREN. Have not these tracks, as a matter of fact, two values; very different values?

Even after you have ordered them up, you have ordered them up, but they are still in the streets. As far as the street-railway company is concerned, you look at it that it is only a scrap value, because if they take them up they have to replace the street, and they have nothing but what you might call junk for sale?

Mr. COUZENS. Yes.

Mr. WARREN. On the other hand, the city wants some tracks in the street, and if the company does take them up and sell them for junk, or threatens to, have not the tracks, until they are taken up, a value to the city which is represented by what it would cost the city to take up the streets again and lay new tracks there, less whatever depreciation there is in this junk?

Mr. COUZENS. That is what I meant by saying that if that condition arose there would be negotiations between the company and the city, whereby we would probably pay more than what they would realize for them as junk, and we would get them for less than what we would have to pay for them if we replaced them.

Mr. WARREN. So that you did not mean to give the impression that you would order the tracks up in order to get them at junk value?

Mr. COUZENS. Oh, no.

Mr. WARREN. But simply to bring the matter to a head?

Mr. COUZENS. Yes.

Mr. WARREN. Was not the appraisal or valuation that Mr. Barclay's firm made substantially on that basis? Did he not figure on what those tracks were worth, less depreciation?

Mr. COUZENS. I think he did.

Mr. WARREN. So that really his figure, if it was made with proper skill, did represent certainly not more than the value of those tracks to the city, if the city were going to operate the railway? I suppose that is your judgment, or you would not have submitted it to the voters anyway?

Mr. COUZENS. It was repeatedly said during the campaign that the price was too high; but it would avoid loss in another direction,

through delay in getting the service. We wanted to avoid delay in getting the whole matter cleared up, so that the city could progress along the lines which it needed to progress upon.

Mr. WARREN. So that, under all the circumstances, in your judgment, the proposition was a fair one of \$31,500,000?

Mr. COUZENS. No; I did not think it was a fair one. It was the best I could get.

Mr. WARREN. It was good enough so that you advocated it?

Mr. COUZENS. I advocated it not because it was good enough but because I could not get anything better.

Mr. WARREN. You could not get anything better even by ordering up the tracks?

Mr. COUZENS. Yes; I might have done that; but I would have to get the consent of the people to do that. I thought I could get at it a shorter way. I thought time was of some value, and I was willing to pay more for the time which would be gained.

Mr. WARREN. The city government could not order up the tracks without a vote of the people?

Mr. COUZENS. Well, the council could order up the tracks, but it would have to have some money to replace them with, and would have to have a vote of the people to get the money to replace them.

Mr. WARREN. You spoke of the fact that the company had failed to amortize its investment during the life of the franchises?

Mr. COUZENS. Yes.

Mr. WARREN. Are not all your charters in Michigan limited in time to a term of years? Take your own company—I will not say your own company, but the company you referred to—the Ford Motor Co.: Does that have an indefinite charter, or a 30-year charter?

Mr. COUZENS. A 30-year charter.

Mr. WARREN. I do not suppose you would think it proper that the Ford Motor Co. should lose all its property at the end of the 30-year charter?

Mr. COUZENS. I think that is a rather ridiculous question.

Mr. WARREN. I think it is, too; but I think the assumption that the street railway should lose its property is also perhaps in the same category.

Mr. COUZENS. In the one case you are talking about a charter and in another case we are talking about using the public highways. In the one case it is a private charter, a charter granted by the State for a private corporation, not using any public facilities or having a monopoly. A charter granted to the railroad company is for a specific time to use specific streets. And I am not talking about the company's losing its charter. I do not care anything about that. I am saying that the time when they had a lease to those streets is up, and they should have taken care of themselves during the time that they had that right, the same as when you construct a building on leased property, you have to remove the building and get off when the lease is up.

Mr. WARREN. Yes; but to do that you have to charge a rent during the time of lease sufficient to amortize the cost of the building; do you not?

Mr. COUZENS. Yes.

Mr. WARREN. In the case of the city of Detroit, is it your impression, or perhaps your knowledge—very likely you know the fact—that the rates charged by the company have been sufficient to amortize this \$30,000,000 during the life of the franchise?

Mr. COUZENS. I am satisfied that the rates have been high enough to amortize the bonds issued against the company.

Mr. WARREN. And the stock?

Mr. COUZENS. I can not answer for the stock, because the stock, as I said before, is spread over all their property in and out of the city.

Mr. WARREN. Put it in another way—

Mr. COUZENS. If they did not scramble their accounts so, and scramble their books so, we could get at the figures, and we would know; but we can not, by the mere statement of capitalization, determine whether that is so or not.

Mr. WARREN. Omit the bonds and stock, and take the valuation: Do you think that the rates they have charged, which I understand you to say so far as you know are among the lowest, if not actually the lowest in the country, have been enough to pay a fair—

Mr. COUZENS. I beg your pardon. I don't want to let you get away with that kind of a statement. I did not say that the fares had been the lowest in the country.

Mr. WARREN. I beg your pardon. What did you say then?

Mr. COUZENS. I said in the last few years.

Mr. WARREN. Oh, yes.

Mr. COUZENS. Because over a period of time back over a number of years the Cleveland street railroad had a much lower fare than Detroit had.

Mr. WARREN. Have they ever been over 5 cents in Detroit?

Mr. COUZENS. Yes.

Mr. WARREN. The rates?

Mr. COUZENS. In Detroit?

Mr. WARREN. Yes.

Mr. COUZENS. Not that I know of.

Mr. WARREN. Not that you know of?

Mr. COUZENS. I think not.

Mr. WARREN. Do you think the rates have been high enough in Detroit, never having been over 5 cents, so that the company could have paid a fair return on the value of the property which it had in the city of Detroit and amortize the entire value of that property?

Mr. COUZENS. It would depend upon what basis they make extensions. If they had taken the original value of the property and the specific franchise that was granted for the original investment—because the franchises have been staggered, you know; they have not all been alike—if they would, on each piece of property, have made no extensions except with the definite understanding as to the length of time that these extensions would be permitted on the highways, they could have provided a fund to amortize the bonds.

Mr. WARREN. To amortize the investment?

Mr. COUZENS. To amortize the investment.

Mr. WARREN. The whole investment?

Mr. COUZENS. Yes.

Mr. WARREN. You think they could?

Mr. COUZENS. Less, probably, the junk value.

Mr. WARREN. Yes; less the junk value.

Mr. COUZENS. Yes.

Mr. WARREN. How long have those franchises averaged; do you know?

Mr. COUZENS. I think that the Detroit Railway, so-called Pingree lines, were 25 years, and I think the other was 30 years, and I think the company claims some in perpetuity.

Mr. WARREN. But 30 years is the longest you know of that have a term franchise?

Mr. COUZENS. Yes.

Mr. WARREN. In this Pingree franchise, which carried a very low fare, the city built the foundation, did it not, for the tracks and carried the pavement expense?

Mr. COUZENS. Yes.

Mr. WARREN. And in the case of the other franchises the city did not?

Mr. COUZENS. They did not.

Mr. WARREN. So that the company paid that.

Mr. COUZENS. Yes.

Mr. WARREN. That is all.

(Witness excused.)

The CHAIRMAN. Who is the next witness?

Mr. OGBURN. The next witness, Mr. Chairman, is the chairman of the Rhode Island Public Utilities Commission, Mr. W. C. Bliss, who represents the commission and the governor of Rhode Island.

STATEMENT OF MR. WILLIAM C. BLISS.

The CHAIRMAN. Just proceed to make your statement in your own way, Mr. Bliss, please.

Mr. BLISS. I am chairman of the Public Service Commission of Rhode Island.

I have assumed that the commission does not desire detail, but wishes rather the general conclusion that has been reached by the Public Utilities Commission of Rhode Island and the history of what has actually taken place in Rhode Island with reference to dealing with the problem that Rhode Island trolleys have met in common with the trolleys of the entire country.

The Rhode Island trolleys consist of four companies, the Rhode Island Co. being by far the largest one. I will not attempt to go into detail to explain the details of the Rhode Island Co., but I will file with the commission a report of the special commission for the investigation of the affairs of the Rhode Island Co., the commission consisting of myself as chairman of the public-utilities commission, the chairman of the State tax commission, and the State bank examiner, who was specially appointed by the legislative enactment in April of 1917 to make a report upon the affairs of the Rhode Island Co.

That report was filed in March, 1918, with the legislature and contains in detail the report of this special commission dealing with the problems with which this Federal commission is now concerned and giving the detailed valuation of the properties made by the engineer employed by the State commission, and also the valuation as made by the company's engineers, Ford, Bacon & Davis.

The CHAIRMAN. What was the reason for that investigation, Mr. Bliss?

Mr. BLISS. The critical condition of the Rhode Island Co., which was being operated by trustees appointed by the Federal court of the southern district of New York as trustees of the stock held by the New York, New Haven & Hartford Railroad Co. They were appointed in 1913, I think, so that since 1913 the Rhode Island Co. has been practically in charge of public trustees who were appointed by the court with a definite instruction to manage the property with a due regard for the public interest and convenience.

They managed the property until February 1, I think, of the present year, when the operation of the award of the War Labor Board, coupled with the other increased costs, forced the company into receivership under the local courts in Rhode Island, and since then the property has been operated by the receivers, and at the present time they have just completed a strike of the employees covering a period of 18 days, which was finally adjusted by agreement upon the basis of 56 cents per hour maximum wage—from 51 to 56, comparing with 42 to 48, which was the previous wages.

The CHAIRMAN. How much will that add to the operating costs?

Mr. BLISS. It will add \$640,000 a year, and the receivers have already filed application with the commission asking for increased rates to meet the situation which confronts them.

The CHAIRMAN. What rate is that company now charging?

Mr. BLISS. I thought perhaps if I approached the subject of the rates in a progressive way that it would be preferable, Mr. Chairman.

The CHAIRMAN. I beg your pardon. Proceed.

Mr. BLISS. And I will try to deal with that now.

The original rates of the Rhode Island Co. were based upon a franchise permitting the company to charge a 5-cent fare within the limits of each city and town within which the company operated.

The municipal limits of Providence, the extreme limits of the city of Providence, were slightly over $3\frac{1}{2}$ miles; and while the original horse-car lines did charge the full franchise rate into the outlying sections, with the electrification of the road, and even before that, the company had seen fit to, of its own volition, enlarge those limits so that the average radius from the traffic center of the city of Providence was about $4\frac{1}{2}$ miles, for which a fare of 5 cents was charged.

There were some exceptions, however, and on some of the lines passengers were carried a distance of $7\frac{1}{2}$ miles for 5 cents.

The traffic, however, being light on those lines, and the lines being operated at a loss; but they were carried by the other parts of the system.

The transfer limits were fixed by the municipal boundaries of Providence so that the 5-cent fare limit from Providence would average $4\frac{1}{2}$ miles, while the transfer limit only extended about $2\frac{1}{2}$ miles; and wherever the municipal boundary happened to be around the traffic center, there the transfer privilege ceased.

The company did, where there were irregular boundaries or jags in the city of Providence, modify that, of their own volition, to arrive at a somewhat more equitable limit for the transfers.

That system of fares was in operation at the time of the appointment of that special commission to investigate the fares of the Rhode Island Co. in the spring of 1917.

The committee was authorized to make an investigation into the affairs of the Rhode Island Co., "to make an investigation into the finances, management, property, and mode of operation of the Rhode Island Co. and other matters related thereto, for the purpose of determining whether or not the company is furnishing a proper transportation service to the people of the State, and whether or not the net income of the said company is a fair and equitable return upon the property owned and controlled by it and devoted to the public service."

The law directed, further, that "upon the completion of its investigation the commission shall determine upon such modifications as the rates of fare and transfer system as it deems just and equitable, and to certify the same to the public-utilities commission."

The public utilities commission was directed to order the Rhode Island Co. to make the modifications found to be just and equitable by the special commission, and certify to it.

It will therefore be seen that the State law which provided for the investigation, provided not only for a report, but provided for something definite to be accomplished, and gave full authority to place it into effect.

The findings of the commission are briefly summarized in the report which I will leave with you, and which I believe you will find will give you the information.

The findings were:

That the Rhode Island Co. is furnishing to the people of the State transportation facilities which compare favorably with that furnished in other cities of approximately the same size, and that reasonable provision is made for the demands of the traffic.

Second, that the Rhode Island Co. does not receive a fair and equitable return upon the property owned and controlled by it and devoted to the public service, and for several years the property has been operated at a heavy loss.

Third, that the fair value of the property owned and controlled by the Rhode Island Co. and devoted to the public service, upon which the company is entitled to a fair and equitable return, is \$29,000,000.

That compares with a capitalization of \$32,287,000, and compares with a valuation of the company's engineers of approximately very near \$34,000,000, and compares, as the body of the report will show, with an investment, as nearly as it could be determined, of \$28,-802,590.

The CHAIRMAN. Is the issue of capital stock and bonds under the control of the commission?

Mr. BLISS. No.

The commission has been in existence since 1912, when the original act was passed. The membership of the commission has remained intact during that period. There has been no proposed legislation for abolishing the commission or attempting to modify its powers, which seems to be the favorite practice of a dissatisfied public. Perhaps we have avoided it on account of the small size of our State.

Commissioner MEEKER. May I ask, is the commission appointed for a term of years?

Mr. BLISS. Appointed by the governor for a term of six years, with the advice and consent of the senate.

Mr. WARREN. Did you say how many commissioners there were?

Mr. BLISS. There are three commissioners.

I might say that I am by profession a lawyer; one of the members of the commission is a civil engineer; and the other man is the editor of a newspaper.

Mr. WARREN. The vocations are not a part of the statute qualifications, I suppose? The statute does not indicate what callings the appointees shall be made from, does it?

Mr. BLISS. There is no provision of that kind in the statute; but there is a provision in the statute that they shall hold no other public office.

The fourth finding—and I diverted from it a little, because I thought it would be interesting to know how the fair value, as determined by the commission, compared with the valuations and findings—is:

That 6 per cent is a fair and equitable return upon the property owned and controlled by the Rhode Island Co. and devoted to the public service.

5. That a modification of the present system of fares and transfers is necessary to provide in part for a fair and equitable return upon the fair value of the property owned and controlled by the Rhode Island Co. and devoted to the public service.

The recommendations which are amplified in the body of the report, first:

That primary regulation of the utility be by the public-utilities commission.

The public-utilities commission has revisory power over all franchises, ordinances, rules and regulations of the city, but the city having primary regulation, constantly brings about the opportunity for a quarrel, because the company has to go first to the city to get these regulations, and if they are refused what seems to the company to be a reasonable regulation, then they petition the commission to override the local city government there, and again you violate the principle of home rule, which I assume you gentlemen find frequently meeting you.

The CHAIRMAN. I wish you would develop, Mr. Commissioner, that question of the quarrel that you referred to, and the divided responsibility; because there are a good many people who look with favor upon that plan of cooperation between the municipalities and the State.

Mr. BLISS. I will say, as a matter of practice, the commission have very rarely met with any serious difficulty with any town or city.

We have encouraged public utilities, not only the traction utilities, but other utilities, to take the thing up with the city authorities and to give them all of the facts of the case, and to try to agree with them before coming to us.

The CHAIRMAN. Can they come to you first?

Mr. BLISS. They do not. We encourage them to go to the cities.

The CHAIRMAN. But can they come to you first, under the law?

Mr. BLISS. They have the right to come to us first; and we have found in many cases that it stirred up a great deal of ill will, and very serious injury to the utilities. For instance, they have come to us and filed their rate schedules involving an increase, without a word to the local authorities of the towns and cities who formerly had jurisdiction over those matters.

As a matter of policy, the companies who have done that have seriously stirred up antagonism in the communities, and now the

companies have learned, partially through the advice of the commission, that at the same time they file their schedules with us, providing for an increase, which has become necessary in recent years with almost all of our utilities, they should file copies of these schedules with every municipality affected, and a copy of the letter explaining the reasons, and an offer to come before the local bodies and offer fuller information, if desired. That has been largely brought about through the advice and counsel of the commission, and is of very practical importance, though not at all required by the law.

The CHAIRMAN. Have you been called upon to pass upon many question that have first been determined by the local municipalities?

Mr. BLISS. No. Very few questions. I think perhaps not over three or four. One was a local ordinance prohibiting the operation of one-man cars in a small town just outside of Newport, R. I.

The CHAIRMAN. Did you affirm or overrule their order in that case?

Mr. BLISS. We affirmed the ordinance of the town, because upon examination of the proposed type of car that was to be operated we found that it did not contain reasonable safety devices.

Mr. WARREN. May I just ask there: Was that the ground on which the town had rejected it also?

Mr. BLISS. The town had passed an ordinance prohibiting the operation of cars unless manned by two men, and they had passed an ordinance to that effect, the ordinance being subject to the regulatory power on the part of the commission; and the commission upheld the town ordinance because, upon the facts as presented, the car did not appear to be safe for one-man operation.

The CHAIRMAN. What were the other questions that you had to pass upon?

Mr. BLISS. I can not recall; they were minor questions, and I can not recall them.

The CHAIRMAN. Do you recall whether you affirmed or overruled the municipalities in these other cases?

Mr. BLISS. Well, the other cases were cases where—I think in the case of electric lighting rates in the city of Providence, where certain features of the franchise agreement that had been entered into between the city of Providence and the Narragansett Electric Lighting Co., certain minor features were not approved by the commission when the rate schedules were filed; so that it was by indirection rather than by directly passing upon the validity of an ordinance or setting aside an ordinance or rule or regulation of the city.

The CHAIRMAN. From your experience, do you think that a satisfactory plan can be worked out whereby the villages have the original jurisdiction, and then appeals will be taken to the State commission?

Mr. BLISS. I believe that the law should provide something that would meet the difficulty of the feeling of the locality that it has the right of home rule; and there is not a State in the United States where the towns are so built up on the principle of home rule as they are in Rhode Island and in New England. In fact, the State is built up around the municipalities. The towns are very old, and practically they have home rule in all of their matters of local concern.

Now, when you attempt State regulation, by a State board, you eliminate that almost entirely. But we did recognize the principle of home rule, by permitting the localities to originally deal with these things, and give the power of appeal to the commission. In the matter of filing rates, however, in the matter of ignoring locality, and going directly to the commission, there was a sort of void in the law; and I believe a great deal of that difficulty could be avoided by making certain requirements that the company must go and submit its proposition to the localities in the first instance, as well as file them with the commission; and for that reason I advised that practice, although it was not required by law; and it has operated very effectively.

In one case, where the Providence Gas Co., the biggest gas company in the State, ignored the city of Providence and came directly to the commission, they stirred up an antagonism that unquestionably cost the company thousands of dollars, and stirred up a prejudice against them which never would have been created otherwise.

On the other hand, all up through the Blackstone Valley, where the large cities of Pawtucket, Woonsocket, and the big manufacturing section are served by the Blackstone Valley Gas & Electric Co., they have followed the advice and plan laid out for them by the commission, and effected just as radical increases in rates without a word of protest reaching the commission from any of the localities.

The CHAIRMAN. Are the people of these localities satisfied to have the appeals taken to the State commission?

Mr. BLISS. Well, it depends upon the localities. I think it does offer a fruitful opportunity for a person who desires to gain political advantage by stirring up prejudice. I think it offers a fruitful opportunity for the officials of the locality to bring what should be an economic question of dealing with the public utilities and make it a football of politics.

I feel that there is an opportunity for the locality to simply stir up public sentiment, and I know that it has been done, to the disadvantage of the locality; it has been done in the case of this very trolley problem, as I will later recount to you.

The CHAIRMAN. It is now 5 o'clock, and we will adjourn until to-morrow morning at 10 o'clock.

(Whereupon, at 5 o'clock p. m., an adjournment was taken until to-morrow, August 13, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *August 13, 1919—10 a. m.*

Met pursuant to adjournment.

Present: Parties as before.

The CHAIRMAN. Mr. Bliss, will you please continue your statement?

STATEMENT OF MR. WILLIAM C. BLISS—Continued.

Mr. BLISS. Referring to the report which I submitted to you gentlemen yesterday, and which you now have before you, I shall wish to refer in a few moments to a map which appears in an early unnumbered page of that report.

At the time of the adjournment yesterday the questions of the chairman was directed to the matter of whether it was possible to devise some form of local regulation of these matters, with a power over to the State Commission.

I think perhaps it should be made clear with reference to the situation of the Rhode Island Co., our principal trolley system, as to some of the difficulties that would result, and have previously resulted, in attempting to permit a local regulation of the trolleys.

A reference to the map will at once show that the lines owned and operated by the Rhode Island Co. operate in 26 different towns and cities which are traversed by the company's lines.

Under the provisions of the State law each town and city is permitted to negotiate the terms of its exclusive franchise tax with the company, leaving the company to deal with 26 different towns and cities—with 26 different ideas, it may be, of what is proper as a payment for an exclusive franchise tax.

It is very possible, and it has happened, that ordinances of the various towns and cities may conflict.

The power of the city of Providence or the city of Pawtucket to route the cars of the company throughout the city may operate to discriminate against suburban towns and communities, and has been frequently a cause of complaint on the part of suburban communities. In other words, the cars serving the population of the city of Providence are routed conveniently for the citizens of Providence, while the citizens of the surrounding towns and cities, which are practically an outgrowth of the city of Providence, and a part of the same social settlement of people, are subjected to an inconvenient routing of the cars; and there is a constant source of complaint with the power in the central community to allocate for its own people and not consider the problem from the standpoint of the general welfare of the community that is centered around the town without reference to the artificial municipal boundaries. The selfish characteristics of individuals are reflected in municipalities. For that reason it seems to me that it would be difficult, if not impossible, to provide a proper plan of regulating trolley companies by leaving the original power with the municipalities. In other words, I believe that the control, especially in a State like the State of Rhode Island, where the population is compact, and where some 400,000 of our population are served by the trolleys of this company, living in 26 different municipal subdivisions—that it is very desirable that the power should be centralized, and that a body should consider this from the standpoint of the welfare of the entire community, rather than with regard to the selfish interests and the artificial boundaries of the municipalities.

However, in dealing with the situation, it presented the most difficult problem in the framing of the public-utilities act. At the time of the framing of the act I was a member of the house committee upon the judiciary, which framed the original public-service act. I had previously served upon that committee for a period of five years, and the great difficulty, really the only obstacle in the operation of the act, was how to deal with this situation. I should be very glad to send to the commission the section of the act which dealt with this particular feature.

The CHAIRMAN. You may do so.

Mr. BLISS. And with perhaps a lack of modesty, I will say that I wrote the section myself, after the town solicitors and the city solicitors of the various towns and cities had been unable to find anything that would deal with the situation; I sat down and wrote a section which proved immediately agreeable to all of them, which left the original right to the towns and cities to frame these franchise contracts and ordinances, but left them subject to the continuing control of the commission in the exercise of the powers enumerated in the act; and in effect said that every franchise agreement, contract, rule, or ordinance should be deemed to be subject to the power of the public utilities commission. However written, the possibility of conflict is always there; and it is very easy to stir up the people on the principle of home rule, which is ingrained in Rhode Island, to feel that a State centralized authority is taking away from them some of the rights that they believe naturally belong to them. As a matter of law they do not belong to them. As a matter of law the legislative power is supreme, and the artificial boundaries of towns and cities could be wiped out almost at will by the legislature. That seems to be the universal consensus of opinion of the courts, but it is difficult to make the mass of the people believe that the municipalities do not have some natural, inherent right that the legislature can not interfere with.

I had reached a point in setting forth the recommendations of the commission—of the first recommendation—that primary regulation of the utility be by the public-utilities commission. And with this observation I will pass on to the next recommendation.

The next recommendation was flatly that municipal franchise taxes be abolished.

The third recommendation was:

That the Rhode Island Co. be relieved from its paving obligations as they now exist, and be required to maintain only that part of the highway actually worn out by it, and to repair all damage done.

Fourth, that the routing of cars be changed to conform to the plan recommended by the commission's engineer.

Fifth, that changes in equipment recommended by the commission's engineers be made as soon as practicable.

Sixth, that the company provide some definite and adequate system for collecting and compiling statistical information relative to traffic costs, passenger movement, service furnished, and a record of the reasons deemed sufficient to warrant changes in routing or service furnished.

Those were the findings and recommendations of the commission after a study of the subject covering a period of nearly a year. Those findings represented an expense on the part of the State and the company—for the legislative act provided that they should share equally in the expense of the commission—amounting to some \$50,000.

The trustees of the Federal court operating the Rhode Island Co. had previously expended a sum of nearly \$90,000 in having a complete valuation of the properties made by the engineering firm of Ford, Bacon & Davis; and their detailed report is attached, and is contained in this volume. So that it is possible to make the exact comparisons between the valuations as fixed by the engineers of the commission and those of the Rhode Island Co.

The point that I wish to express is that an expenditure which, in the final analysis, came out of the people of the State of Rhode

Island, of approximately \$140,000 or \$150,000, was involved in making this investigation for the purpose of getting all the essential facts before the public so that they might approach this problem intelligently.

Contained in the body of the report, which comprises only 50 or 60 pages, is every fact connected with our trolley companies from the commencement to the end. If there is any essential fact with reference to the trolley system of the Rhode Island Co. that is not contained in the report, nobody has called any attention to it since the report of the commission.

The commission presented this report to the General Assembly of Rhode Island about March 8, 1918.

The report was made in the printed form which has been presented to your body as an exhibit, and the commission prepared the necessary legislative bills to carry the recommendations into effect, these bills being introduced in the house of representatives on the same day that the report was presented.

On the following day the legislative leaders of the house presented and passed, under suspension of the rules, two bills, the first specifically repealing the section of the special act of the previous year, whereby the commission was authorized to place its determination as to modification of rates in effect, and prohibiting the public utilities commission "until further order of the general assembly, from in any way modifying the rates of fare of the Rhode Island Co."

That is an example of the way public opinion acts there when it gets in a hurry. It is almost the same method of reasoning that occurs in benighted Russia.

The second act created a joint special commission of the senate and house of representatives to conduct an investigation of the company and to report within 10 days to the general assembly.

These bills were promptly passed by the senate, and, the following day, promptly signed by the governor.

The legislative committee thereafter conducted hearings, secured an extension of time within which to report, and at the end of some three weeks presented a divided report, a bare majority favoring the establishment of 6-cent fare zones to replace the old 5-cent fare zones, and the minority report favoring the zone plan as recommended by the special committee.

Neither the majority nor the minority committee report made any recommendation with reference to relief from franchise taxes and paving obligations.

The House acted upon the report, and it was there voted, the vote being 49 to 47, to ratify and confirm the determination of the special commission, thereby approving the zone system as recommended by the commission.

The Senate concurred in the House action by a vote of 19 to 17, on the closing day of the session, and the act was approved by the governor on April 19, 1918.

The new rates became effective on May 5, 1918, the special commission having ordered them in effect upon April 1, so that the company lost the benefit of one month and five days of the new rates.

The act as passed by the legislature provided that the rates should continue for the duration of the war and one year thereafter unless

sooner abrogated or changed by the public-utilities commission in accordance with law.

It seemed as though it amounted to but very little to say that the rates should continue for the duration of the war and one year thereafter, and then place them back where the power originally resided, in the public-utilities commission.

I am briefly going to run through the chronological order in which the situation has changed since then.

These rates became effective May 5, 1918.

On June 1, 1918, under the terms of the agreement with the commission, increases in wages of \$200,000 a year became effective, and the company, in order to retain its help and attempt to secure men when there was a great shortage of men, voluntarily increased the wages \$100,000.

So that, commencing June 1, 1918, the company assumed obligations of \$300,000 more in wages.

On July 19, 1918, despite the advance that had been made to the men, the men made an application to the War Labor Board for a substantial increase in wages.

On August 15, 1918—the action of the War Labor Board having been carried out apparently by the finding, I think, in the Cleveland case, where the rate had been fixed at 48 cents per hour—the company proceeded to file with the commission new rate schedules which would provide for an estimated increase of \$2,100,000 in revenue.

In the middle of October, 1918, the award of the War Labor Board in the case of the Rhode Island Co. was made, involving wage increases of \$1,250,000. To make the award still more difficult for the company, these wage increases dated back to July 19, involving the payment of back wages of some \$300,000 on the part of the company.

Commissioner MEEKER. What wage rate was fixed, may I ask, at this time?

Mr. BLISS. The advance was to 34 cents, June 1, 1913.

On July 19 application was made for a still further increase, and in October that increase was made to 48 cents, dating back to July 19.

Commissioner MEEKER. Was the increase from 34 cents to 48 cents?

Mr. BLISS. The increase was from 34 cents to 48 cents. That was the maximum wage scale.

On October 19, the commission having completed its hearings, gave permission to the company to place in effect these increases in rates, which estimated a return of \$2,162,000 increase in revenue.

On July 30, 1919, the Rhode Island Co. went into receivership.

April 1, 1919, the commission having on October 19, 1918, granted the rate increases applied for, reduction was made in the suburban through rates, the application of the rates having shown that the company was hardly as well off under the increased rates that had been granted as it had been under the others; and it was deemed by the company and by the commission to the advantage of everybody to somewhat reduce those rates for the purpose of trying to retain the traffic.

Commissioner GADSDEN. That was the suburban rate?

Mr. BLISS. Yes.

In July, 1919, the underlying companies of the Rhode Island Co., which had leased their properties to the Rhode Island Co.

under a rental plan, the rentals having absolutely ceased under the receivership, were forced into receivership. Their only income being the rentals of their property, and with the failure of these rentals to be paid, the underlying companies had to default upon their bonds, and receivership was forced.

MR. WARREN. That was this very last July?

MR. BLISS. This July; yes.

On August 8, 1919, the day following the termination of a strike of the men, which had continued for a period of 18 days—as a result of which, by agreement between the receivers and the men, they were granted a wage of 56 cents per hour, involving an increase of \$640,000 a year in wages—the company filed with the commission a petition to put into effect a still further rate increase. That petition is pending. The first hearings will be held upon it upon Tuesday next.

I think that that will give you a chronological record of what has been done in the way of changes in the fare systems.

I have described to you the original rates that were in effect prior to May 5, 1918, and, roughly, I will repeat and say that the 5-cent fare zones around the city of Providence averaged about $4\frac{1}{2}$ miles. This may be seen by reference to the map appearing on the page after page 56 in the report which you have before you.

You will see there, indicated by the red line, the Providence 5-cent fare limits. You will see, indicated by the purple lines within that, the transfer limits, which were not identified with the 5-cent fare limits.

You will note the same with reference to the city of Pawtucket, where the radial circles are shown with reference to Pawtucket. But, roughly speaking, the fare system around the traffic center of Providence was $4\frac{1}{2}$ miles on the average, and the transfer limit was considerably less.

Commissioner MEEKER. May I ask, in reference to the interurban fares: There is considerable competition with the steam railways and the electric lines operated by the New York, New Haven & Hartford Railroad, is there not?

MR. BLISS. There is; there are but three lines radiating from Providence where there is no direct competition by the steam lines: The one line known as the Oakland Beach branch, as it is called, a former steam line, but now operated by the trolley company, is one where they do not come in direct competition. The Danielson line, which goes across the State westerly to Connecticut, has no steam competition. And the line to Chepachet, running to the north, has no steam-railroad competition.

If it is desired by the commission, I will briefly explain the method of fare increase that was used by the application of a limited central 5-cent-fare zone, with 2-cent zones outside.

The zone plane of May 5, 1918, provided that the Providence single 5-cent fare and transfer zone should include the area within an air-line radius of approximately $2\frac{1}{2}$ miles from the traffic center of Providence, excepting in the direction of the city of Pawtucket, where the city line of Providence and Pawtucket was continued as the transfer limit of the two cities. In other words, we limited the 5-cent ride to $2\frac{1}{2}$ miles where it had averaged $4\frac{1}{2}$ miles before.

The Pawtucket single 5-cent fare and transfer zone—Pawtucket having a population of about 55,000 people, as compared with 175,000 people in the city of Providence—the Pawtucket single 5-cent fare and transfer zone included the area within the State of Rhode Island within an air-line radius of approximately 2 miles from the traffic center, except in the direction of Providence, where the city line was continued as the fare and transfer limit.

The Woonsocket single 5-cent-fare and transfer zone included the area in the State of Rhode Island within an air-line radius of approximately 2 miles from the traffic center of Woonsocket.

And again, on the Clyde Square-river points the single 5-cent-fare and transfer zone included an area within a radius of approximately 2 miles from its traffic center, Clyde Square.

Local 5-cent fare and transfer zones were established for the town of East Providence, a municipality separated from Providence by the Seekonk River; and for the city of Cranston an overlap was arranged to care for the business center of Olneyville within the city of Providence, in the midst of the busy manufacturing districts. Those were the only modifications of the general plan.

Outside the central single 5-cent-fare and transfer zones above described there were established intermediate zones of fare of 2 cents for travel through each such zone, with a minimum fare of 5 cents entitling the passenger to travel through two of such zones.

Upon page 59 of the report—and I will not attempt to read it—is a complete description of the operation of the interurban and suburban lines.

Upon the following page, page 60, is shown the tabulations which show the total track mileage, the track mileage local to each end, and the intermediate track mileage for each interurban and suburban line, as well as the number, the average length, and the rate in cents per mile of the intermediate zones, together with the statement of the new and old total rates of fare, with increases or decreases indicated.

Summarized, upon the regular suburban lines which we have separated into the interurban and suburban lines, the ordinary interurban and suburban lines, and then interurban and suburban lines with low rates of earning, where we simply had to put absolutely the highest rates of fare that the traffic would bear, because they had to be supported by the central lines, we have differentiated with reference to them. So that contains these lines of low earnings, the average length of such zones reflecting approximately $2\frac{1}{2}$ cents per mile for travel.

Upon these lines the minimum fare of 5 cents entitled a passenger to ride through three of such zones. Upon the other interurban or suburban lines the average length of such zones varies from 1.18 to 2.08 miles, and the average rate from 0.96 of a cent to 1.69 cents per mile.

In the case of these lines a properly advanced through rate was determined upon, having in mind the existing rates, the nature and density of traffic, and the public effect of such increased rate upon travel.

I think that an examination of the determination of the commission, contained in pages 56 to 62 of the report, will give a complete description of the method that we followed.

I will say that I propose to run through these various zone plans, and then to present to the commission the effect upon revenues and traffic of each, rather than to attempt to give you the effect upon revenues and traffic now, when I am describing the plan.

The CHAIRMAN. Are the different zone plans indicated in this report?

Mr. BLISS. Only the 5-cent contracted central zone, with the 2-cent zones. I will indicate to you the plan that was later adopted.

The rates which became effective May 5, 1918, continued until October 23, 1918, when, after the award of the War Labor Board, the company applied for permission to put into effect a very substantially increased rate.

The rates that were then placed in effect are described upon page 10 of the report of the commission, the paragraph at the top of the page, a copy of which report I will file with this commission. It can briefly be described as follows:

The new system is based upon contraction of the central 5-cent-fare zone about the Providence traffic center from 2.5 miles air line to 2 miles, with an average track mileage of 2.4 miles, thereafter a series of 5-cent-fare zones, the first extending air line for 1.75 miles, with an average track mileage of 2 miles, the second and succeeding zones extending 1.5 air-line miles, but averaging about 1.7 track miles when placed in practical operation.

About the traffic centers of Pawtucket, Woonsocket, and River Point the 2-mile air-line radius is maintained.

Difficulties of collection and difficulties in the application of the large increase of fares required by the present emergency have led Mr. Emery—

(Who was the representative of Ford, Bacon & Davis, who had carried on the investigation with the commission for over two years)

—to the belief that the present more equitable 2-cent-zone system can not be modified to meet the situation. He frankly presents his plan as one designed to best meet the needs of the present emergency.

This rate schedule is the rate schedule that is now in effect, except as somewhat modified by the reduction of the interurban rates of fare to meet the lines of traffic, so that the rates are substantially higher than 5-cent central-zone rates with 2-cent succeeding zones, but lower than the rates that are created by the commission's order.

In effect, the rates have been placed at the highest point that the traffic will bear for the benefit of the traffic and the benefit of the suburban communities.

So that it is my belief that it is impossible to increase the revenues of the company by increasing the suburban and interurban fares any more, because you can ride a horse to water, but you can not make him drink; and you can have your trolley cars, but you can not make people ride upon them when other means of transportation—the commutation rate upon steam lines, privately owned automobiles, and so forth—can furnish those people a similar, if not a superior, service at an equal or lesser rate. And it is my belief that the remedy for this situation must come through the application of higher rates—if the remedy can come at all through the application of higher rates—only when those are applied to where the popular centers are and where the riding is heavy. Otherwise you will kill the goose that lays the golden egg. You will destroy the patron of your road.

As I have stated, subsequent to the strike, which continued upon this road for a period of 18 days, the strike was settled by agree-

ment, upon the basis of 36 cents per hour; and the company has now filed with the commission applications for a very substantial rate increase to try to meet the situation presented by those still further drains of \$640,000 in wages.

I am now briefly going to touch upon the effect upon the revenues and traffic of the application of these different plans. The findings of the commission, as explained in detail in the report, showed that, roughly speaking, at the time the commission made its report, in March of 1918, the problem was to produce \$1,000,000 of additional net revenue.

The commission recommended that the rate payer contribute, by the operation of increased fares, a sum that was estimated to be \$540,000 a year; that the taxpayer of the municipalities contribute, by the abolition of exclusive franchise taxes, the sum of \$150,000. Those exclusive franchise taxes are enumerated in the report upon page 41. You will notice there are several reports, and each are numbered by themselves. This is Appendix B, page 41.

Commissioner GADSDEN. Away in the back?

Mr. BLISS. Yes.

Commissioner SWEET. Had we not better have that read into the record?

The CHAIRMAN. I am afraid there are too many of them.

Mr. BLISS. On page 41 of Appendix B, the report of the commission's engineers, are indicated all of the taxes paid by the company and the percentage of the taxes to the gross earnings, approximating a sum of \$150,000.

The commission recommended that the taxpayer—

Mr. WARREN. May I interrupt you just for a moment? Does that give the total amount of taxes paid, too?

Mr. BLISS. Yes.

Mr. WARREN. Will you not just state the total? I would like to get the total on the record.

Mr. BLISS. The grand total of taxes for the year ending June 30, 1917, was \$546,764, an average of one-half of a cent out of each 5-cent fare that was received or each 5 cents of revenue that was received by the company. In other words, the taxes approximated 10 per cent of the gross revenues of the company.

We recommended that the ratepayer—the man who rides in the car—contribute \$540,000 through increased rates; that the taxpayer give up his exclusive franchise payments, amounting to about \$150,000, and that the taxpayer give up the further sum of \$90,000, representing the average annual cost of paving to the company for the past 10 years. In other words, it cost the company for the past 10 years an average of \$90,000 a year for the new pavement between the rails and 18 inches on either side.

Mr. WARREN. Is that included in that total of taxation—the \$500,000-odd?

Mr. BLISS. It is not. The paving obligations are not.

Mr. WARREN. That is additional?

Mr. BLISS. Yes. A total contribution for the taxpayer toward this \$1,000,000 deficit of \$240,000.

We recommended that by a somewhat radical rerouting of the cars in the business center of Providence the average speed of the cars

could be increased, and by the application of a skip-stop plan and other economies, as recommended by the engineers of the commission, a saving of nearly \$200,000 could be effected, thus producing a total revenue of \$980,000 to meet the required increased revenue of about \$1,000,000 which was faced.

That, roughly speaking, was the finding of the commission.

In the final analysis I thoroughly believe that this is clearly a question between the taxpayer and the fellow who pays the fare in the cars. You can not escape it. The taxpayer has an immediate interest in the welfare of the trolleys. He has an interest that is worth money to him, an interest that he can afford to pay money for; and the man who rides in the car is forced to have an interest in the trolley car, because by necessity he must use it; and the final solution of this problem can not come through simply applying all of the increases to the man who rides in the car or applying all of the burden of taxation, as has been suggested in some of your hearings to the taxpayer to furnish service free.

Commissioner SWEET. Right there, Mr. Bliss, will you not state a little more in detail the advantages to the general taxpayer of having the street railroads?

Mr. BLISS. The advantages to the taxpayer of having the street railroads at a reasonable rate of fare are that the whole community is opened up for development. The man can choose his residence as he pleases, intercommunication between distant points is easily afforded, and social relations can be carried out conveniently.

Commissioner SWEET. In addition to that, the taxpayer who is not a regular car rider does want to use it once in a great while, perhaps, as a convenience.

Mr. BLISS. Yes; but the taxpayer may hold rental properties.

Commissioner SWEET. Certainly.

Mr. BLISS. The rental value of his property is dependent upon reasonable rates of fare on the street railroads.

Commissioner SWEET. Certainly. He has both of those interests.

Mr. BLISS. The servant whom the taxpayer employs and who has to use the car is much better satisfied, and accepts, perhaps, a lower rate of wages, if she can have the free opportunity to visit her friends at a distance.

Commissioner SWEET. Yes; that is right.

Mr. BLISS. The business interests are vitally affected. The centralization of business is entirely dependent upon lowering the unit rate of fare. I am going to speak a little later of the very marked effects upon decentralization of business that have accompanied very radical increases in fare. I have described, and I do not want to take up too much time of the commission, because I realize that you have many other witnesses to hear from, but, roughly speaking, I have stated to you the problem presented to the commission, and, roughly speaking, I have stated to you the way in which we proposed that it should be fairly treated.

Let me at this time simply call to your attention the fact that the legislative power of the State of Rhode Island did nothing whatever to place a burden upon the taxpayer. The legislative power simply provided for the increased rates of fare and went off and left the problem; and the situation to-day as it exists in Rhode Island is

that the only power to alleviate this situation, without legislative action, without consent on the part of the municipalities—that it is absolutely impossible to secure, because those in control of the municipalities do not dare to grant or consent to relieve this company from its obligations, for political or other reasons—the only relief for this situation in Rhode Island must come from increasing the rate of fare, and it is absolutely impossible to ultimately deal with this situation through mere increases in the rates of fare.

The wage increases that have been hurled at this company, when its total net revenues were less than \$6,000,000, and when wage increases, first of \$300,000 June 1, 1918, \$1,250,000 a year added in the middle of October, 1918, and dated back to July 19, and \$640,000 a year more added, absolutely show the impossibility of securing that through the mere medium of fare increases. We have granted in Rhode Island a very substantial increase under this zone plan. I am going to tell you the effects of it in a minute on this 2-cent-zone plan.

We then granted the very much more radical increase involved in the contraction of this zone to a two-mile air line with the 5-cent outside zones, and when we attempt to meet the situation now in order to simply pay the operating expenses and taxes of this company, I am afraid that we will simply have to go beyond the point of securing revenue; we will have to go, in other words, to a point where the company will be no better off, and I do not believe that it is possible for the Rhode Island company under any management—and I believe it has been fairly managed; it has been managed by Federal trustees, men of the highest standing in our community, without regard for their political affiliations, appointed by the Federal Court for the Southern district of New York and in charge of this property for a period of five years; they have rendered good service, they have done everything they could to manage the property properly; the receivers who are in charge of the property now are men of high ability and are handling the property just as well as it can be handled, but they simply can not solve the problem when there is no restriction upon the wage increases that are applied.

In other words, the final solution of this problem can never come—we never will have it settled under present conditions until you find some method of giving the same power of regulation of wages that you give to the regulation of rates.

Now, they may say that that is a very tender proposition; but it ought to be possible for every community—and the community is vitally interested in its low car fare—every community ought to have the right to go out and bid for the labor that is employed upon its cars and get it at the lowest reasonable rate that it can get it. To-day it can not be done. It is no use to discuss the reasons for it; to-day it can not be done; and the condition of labor, and in the condition of unionization of labor, it is impossible to do it; and you are practically at the mercy of the labor unions. And what they have done in requesting increases of the War Labor Board and what they have done by trying to enforce their demands by strikes and the arbitrations that follow strikes, the forced solution of these problems in an instance and without full and fair consideration means that a child having once learned that he can get candy by crying for it will cry louder and louder every time just as long as you give

it to him. The public are entitled to go out into the labor market and pay for the labor involved in carrying on their public utilities what is a reasonable price for the service performed as compared to the price being paid for the rest of labor. And the public are entitled to protection, I thoroughly believe, against having an essential public service taken away from them and then being forced to pay more than a reasonable amount for labor.

The effect upon revenues of the 2-cent-zone plan which remained in operation from May 5 until October 23, 1918, produced additional revenue—as nearly as it could be figured—amounting to \$505,000 a year, compared with estimates of \$540,000. It produced that revenue in spite of the following factors:

During the months of May and June it produced well up to the estimates, and during the months of July and August, the street railway companies of New England all reflected a tremendous loss of travel. People were busily engaged in manufactures; the ordinary outings were given up, the dance halls that were operated six nights a week were open only on three nights a week; and there was a distinct falling off in travel reflected on all of the street-railway lines, which was suffered by this company as well as the others.

In the latter part of September and during October, the influenza epidemic practically depleted it, so that under the increased rates of fare this company showed less gross revenue than it showed the year before.

But even operating under all those unfortunate conditions the 2-cent zone plan, with the contracted 5-cent center, operated in Rhode Island to hold the traffic on the cars. There was very little, if any, loss of traffic on the part of the company, and it was believed by the commission that for that reason this easy gradation from 5 to 7 to 9 cents would hold the traffic, and the result of the operation of the plan showed it did hold the traffic and it did not work any undue hardship or any injurious economic or social results.

The 5-cent-zone plan—that is, with the still further contracted central 5-cent-zone and with the 5-cent units outside, which operated to place a large part of our population prior to May 5, 1918, paid 5 cents to get back and forth to the centers—made them pay 10 cents and was estimated to produce \$1,250,000 worth of revenue. In practical operation for the period from October 23 until the present time that has operated to produce only about \$350,000 out of the \$1,262,000 that was estimated. In other words, it fell short \$912,000 of producing the revenue that was estimated for it. There was a distinct loss of travel during the early months from October 23 until April 1, when we modified the interurban rate. Since that time the showing has been distinctly better, and if this increase had been based upon the showing of the months from April 1 down to the present time, the shortage would not have been nearly as great.

In connection with the 5-cent-zone plan it is to be noted that provision was made for the application of a 1-cent charge for transfers. The 1-cent charge for transfers was estimated (p. 10 of the commission's finding) to produce \$172,000 and has actually produced \$150,000 a year, which has operated to reduce the use of transfers about 15 per cent. It seems to have been received by the people without any complaint whatever, and possibly one of the reasons for

that is that we have retained the central 5-cent unit, and I think many of the people living within that area feel as if they ought to pay more for their car fares, little realizing that the principle involved in retaining the 5-cent central unit is that the average of the short-haul travel really makes the short-haul traveler pay far more than he should pay for his transportation.

The 5-cent-zone plan as modified I have explained to you. It was modified simply in the interests of the company and the public to try to get more revenue out of the people, for in the final analysis, the rate plus the traffic represents your gross revenue. You can put your rate up and drive your traffic unit so low that you are worse off. So that the company and the commission and the results have proved the wisdom of it—have shown that the modification of this rate somewhat has operated to increase the traffic to such an extent that the company is better off with the lower rate than with the higher.

I think I have explained now briefly the effects upon the revenue and traffic. Just a moment now to refer to the social and economic effects that we have noted with reference to the contraction of the 5-cent limit and creating 10-cent limits within the city of Providence. These outlying sections of the city of Providence pay 10 cents to get into the center of the city, and of course, the outlying communities formerly in the 5-cent limits out of Providence are now paying 10 cents.

The most marked effect has been in the case of Pawtucket and Providence, Pawtucket being a city which is north of Providence and borders on Providence, a thickly built-up section all the way between the cities; so that from a social point of view they are all part of one community. The rate between Providence and Pawtucket, originally 5 cents, later 7 cents and now 10 cents, has operated to tremendously stimulate the business activities of the center of Pawtucket and to the same extent to take away the business from the center of Providence.

The operation of the strike which limited the methods of transportation also operated to very greatly stimulate the business industries of Pawtucket.

Olneyville, which is a business center to the northwest of Providence and a natural center of the car lines with a big mill population located around that center, has shown a tremendous increase in its business activities. The people come in and trade in Olneyville rather than to pay the other 5 cents to get on to Providence.

The same thing is true in East Providence, where an overlap exists. The people save the 5 cents in and out of Providence and trade locally.

In other words, the effect of this is to decentralize business. The merchants in the center of the city—the big department stores—are the losers by it, and I believe that the men who are the owners of the centralized business enterprises can well afford to not only pay the increased tax rate which would be involved in giving up their franchise taxes and paving obligations on the part of the company, but also could go out there and subsidize these roads to retain a low rate of fare to the center.

Commissioner GADSPEN. From the social standpoint, why is not that a good result? Why should not the towns trade with them—

selves instead of going to some other towns, from the social standpoint?

Mr. BLISS. Well, I assume that centralized business operations can be carried on with the greatest economy, and I presume there is greater economy—I think it is shown there in the case of the big public markets in Providence, which are carried on on a cash basis. I think the prices reflect the ability of these companies to do business in a large way and deal with a large number of people. In other words, one set of overheads is applied to larger business while the separate overheads applied to smaller markets would operate to greatly increased cost.

Commissioner GADSDEN. But they have been doing that business heretofore at the expense of your railway system, have they not?

Mr. BLISS. They have since—

Commissioner GADSDEN. Under the prior system.

Mr. BLISS. Since about 1912.

Commissioner GADSDEN. Under the prior system of fares these big department stores have been centralizing business at the expense of the transportation system?

Mr. BLISS. Yes.

Commissioner GADSDEN. And the transportation system has paid the cost by going broke?

Mr. BLISS. Yes; although—

Commissioner GADSDEN. Now, that is the contribution that the transportation system has made to the solution of the social problem, is it not?

Mr. BLISS. Well, I just want to make myself clear. I do not believe that prior to 1912 the department stores were doing this at the expense of the transportation system. I think it is only since 1912 or 1913, when these very large costs became involved and when the companies under their old franchise agreements were held right down with their nose to the grindstone—from that time on the company has been furnishing the public with more than it paid for, and, of course, they have been furnishing the department stores with more than they paid for; and the department stores are the principal beneficiaries of a low unit rate of fare.

Commissioner MEEKER. If the department stores can conduct business so much more economically than the smaller stores in outlying communities, will the people not eventually learn that and trade in the central districts of Providence as they did before?

Mr. BLISS. Well, if—

Commissioner MEEKER. If the economy of centralized business is sufficient, then the people of Pawtucket and the outlying districts could well afford to pay the extra street-railway fare?

Mr. BLISS. Well, I think that is largely a question of psychology on the part of the housewife. When the housewife figures the actual 10 cents that she has got to pay, or 20 cents, to go in and out of Providence now from the suburbs, and the question of going down to the corner grocery and the 20 cents that she can see plainly that she would save perhaps by the lower-priced goods, that she perhaps can not see that so plainly. But I am simply pointing out to you the actual effect of the application of these increased rates, so far as the decentralization of business is concerned.

Commissioner MEEKER. Yes; we have to recognize that man is far from being a rational animal. He does not act as the economic man is alleged to act. For example, when the price of milk increased 1 cent in Boston, the amount of milk consumed was cut in half, although at that increased price, milk was still the cheapest food product.

Mr. BLISS. Well, the same thing is true with regard to transportation. There never has been, on the part of those in public positions or on the part of the press, any disposition to prevent the facts of the problem being clearly presented to the public; and the public have shown an animus, and with the application of these increased fares they walked down to the 5-cent points, and everybody was talking against the company, and the public, acting in the same irrational manner that you have referred to, was simply hurting themselves, because every bit of revenue that they took away from this company, so much the sooner forced a still further fare increase.

Commissioner MEEKER. I do not want to interrupt your direct statement, but I think this is rather important. Do you not think that the public can be educated to understand its own interests so that it will not walk or refuse to patronize cheap transportation means by electric railways when the matter is placed before them fully?

Mr. BLISS. I have always believed that the public is absolutely reasonable. I have had experience in public positions and public life and experience upon the commissions—and I have said from start to finish that the public is absolutely reasonable, if the public can get the facts fairly presented to them. I do not care about the agitator; he will agitate anyway. But when intelligent men, college men, and business men can not get the essential facts of the problem before them, how can you expect to get an unprejudiced and fair conclusion on the part of the public?

Now, I think that the difficulty with the situation, as has been pointed out to your commission here, as I judge by reading it, is that the public are not permitted to get the essential facts of this simple problem in their minds. And people who are in public positions, who should come out and who could reassure the public and who could control public opinion and whose word would be accepted as to the facts—until these people are willing to do that—until these agencies of publicity, of the press, are willing to come out and state these facts, just so long will the proper solution of this problem with the mass of the public be delayed.

The social effects have not been so marked. That is, you would naturally expect, under a substantially increased fare that we have applied, that you would have the centralization of residence on the part of the people; they would all crowd within the 5-cent area. The lack of housing accommodations has operated in such a way as to show but very little effect upon the people socially. There seems to be no less a demand for tenements outside the 5-cent limits than within. And while that tendency, I think, would be very marked with the resumption of normal conditions and the resumption of building, I think under the present emergency conditions there has been no serious effect from that.

I wish briefly to touch upon what I believe have been the fundamental causes of the emergency situation that exists.

The increased cost of labor and material is absolutely at the foundation of the problem. It is because of increased fares, it is because of receiverships and the lack of prosperity on the part of the companies. I believe the increased cost of the materials could have been handled and can be handled by the company. The increased cost of labor, I see no definite way of handling. I do not know any way in which it can be dealt with until the people who are inconvenienced by strikes—the people who are the ones who have to pay the tremendous increased burden of these fares—until those people rise up and educate those who represent them in legislative bodies to the fact that some authoritative tribunal must pass upon these matters and that the public convenience must be considered in dealing with these things and somebody must stand up and definitely and finally decide what shall be a fair wage; and strikes of the people after such a decision, or organized attempts to interfere with the carrying on of business should be punished according to law. That may be the ultimate way out of it. Under the present conditions I do not see any immediate prospect of relief; but I think all of us must realize that it is a disorderly way of dealing with the problem of the wages of men employed in street-railway employment, to force the public to suffer the inconvenience of strikes.

The most remarkable condition that accompanied the strike situation in Rhode Island was that the public were able to carry on their ordinary business, factories carried on their business through the use of motor transportation and the application to the steam roads, and the business and commercial life was carried on for a period of 18 days without any spontaneous demand whatever on the part of the public to force a settlement of the strike.

I think that the second cause that has produced this result is the excessive franchise taxes and paving obligations which, while formerly easily borne by this company, under the low labor costs and under the constant improvement which tended to reduce the cost of transportation, when troublous times came—it is just one darned thing after another; and I think these franchise taxes and paving obligations are the heaviest burden and the first thing that should be removed by legislative enactment. The amount of franchise taxes and paving obligations would go a very long way to reduce the rates of fare, and certainly the benefits which come to the taxpayer by having a low rate of fare would more than offset the increased cost of his taxes. How you are going to bring it about I do not know. We tried to bring it down in Rhode Island, and we thought we were fortunate in securing any relief at all for the company; but those bills were not moved from the committee.

The third cause is the competition of the privately owned automobile. The privately owned automobile has come to stay. We can not interfere with that. That is going to remain. And the only way we can do is to have hard times and force people to dispose of their automobiles and ride in the cars. We do not want that as a remedy of the situation. But the tremendous increase in the number of privately owned automobiles—the influence is just as strong in Rhode Island as it is everywhere else. Every improvement of State high-

ways tends to increase the number of these automobiles and the use of the roads.

The estimates of the effect of jitney competition, as shown by actual ridings taken by the commission, appear in the report; and if I may take that, I will refer you to the page so you will have it in your record. It appears upon page 31 of the report of the commission, where we have indicated, that, according to the ridings that were at that time shown, the loss in gross revenue to the Rhode Island Co. was probably not less than \$300,000 a year. With the application of each increase in fares the jitney competition becomes all the more severe.

The regulation as it exists in Rhode Island is left to each of the localities. In the city of Providence and the city of Pawtucket, where the jitneys are in principal use, the requirement is a \$25 annual license fee, a \$500 bond for each passenger, up to the capacity that is fixed for the car—five passengers is the common amount—and a \$2,500 bond and \$25 license fee, and, of course, the ordinary registration motor vehicle fee to the State.

The jitneys are under no other regulation. They are not required to operate over particular routes; they are not required to operate upon particular schedules. I believe that the jitney furnishes to many people a superior service to that of the trolleys, and I believe, for that reason, that it will be impossible to abolish the jitneys. I believe they should be placed under the strictest regulation. I think they should be required either to be placed under the supervision of the city authorities or under the supervision of the commission and required to run upon regular routes and with regular schedules, and they should be required to furnish statistical data if required.

Commissioner MEEKER. You spoke of putting them under the strictest regulations. You mean, do you not, the same regulations that apply to the street-railway companies practically? You would not make the regulations more severe for the jitneys?

Mr. BLISS. No; but I mean, for instance, the safety features. If you could see some of the jitneys that operate, which are regularly licensed, and some of the drivers, you would think they ought to be directed to the board of health for fumigation and some of the machines sent to the car shop for repairs.

Commissioner MEEKER. And do you think that the jitney would still survive as a severe competitor to the street railways if it were subject to severe regulations—practically the same regulations as street railroads?

Mr. BLISS. I think it would operate to hurt the street railways, but I think they would be very greatly reduced in number. In the city of Providence, our great difficulty is our narrow streets and corners, which make the operation of these large cars difficult. The congestion of the streets with jitneys and with the other automobiles tends to very greatly delay the movement of the cars through the center of the city. That is one reason why the recommendation of the commission's engineers of rerouting these lines outside the center of the city—which would immediately be objected to by the department stores who want every car to go by their doors—such a rerouting would operate to tremendously increase the speed of the cars; and we estimated that an average increased speed of 10 per

cent would mean, under the operations of 1912, \$150,000. The jitneys operate to delay the movement of cars. They crowd in, in front of cars, and delay the movement of loading the passengers; and the jitneys which are unregulated pull right in between the white posts and the car and the passengers; and all of that delays the movement of the cars. And I think that the public generally would welcome proper regulation of the jitneys, but they would oppose the absolute suppression of the jitney, because the jitney does render a superior service to the car. It gets you there quicker. We have a large number operating between Providence and Pawtucket on a 15-cent rate, compared with the trolley-car rate of 10 cents; and they do a tremendous and profitable business, and they are well conducted and proper cars and run on a businesslike basis. And I think the public are willing to pay for that service, even though it costs half as much again as the trolley does. But to leave the jitneys unregulated and permit them to come in direct competition with the cars is a very serious cause of the present situation.

Another cause, and one which I think should be remedied at once, is the tremendously increased Federal taxes which have been applied to the street railroads. The street railroads should be relieved from the obligation of the Federal taxes. A tax upon street railways is simply a tax upon the riders in the car. I believe the welfare of the United States is dependent upon the average man who rides in the cars. And when the business is being conducted under such hardships as it is at the present time, I think the application of taxes which, during the last two and a half years, have added to the cost of the Rhode Island Co. over \$20,000 a year out of their net income—I think they should be relieved from it, and I think every other street railroad should be relieved from the application of the Federal war taxes.

The most cruel thrust, however—the thing that brought the patient near to his demise, the thing that made your commission here partake of the nature of a coroner's inquest rather than a consultation of doctors as it should have been—is the application of the findings of the War Labor Board. To take a sick patient, like the Rhode Island Co.—to take a patient who is struggling under the load of increased costs, jitney competition, and less traffic due to the war—and boldly hand out to him a dose of \$1,250,000, with these beautiful words of consolation: "We are not concerned with the financial condition of the company, its ability to meet these increases. This is a living wage, and you have got to get it somehow." And of course, this motto, or this warning, was passed on to the public-service commissions of the various States and to the towns and cities. The towns and cities did not respond. Generally speaking, over the country the trolley situation has received little assistance through the action of the municipalities. I believe that the commission—that really these burdens have been passed out in this way—passed out without regard for the effect of it—have been placed fairly and squarely before the public-service commissions of this country. We have had to stand up and do all we could under the terms of our oath, to do our duty under the circumstances, and it has been a difficult position, especially when we can see that no increase in rates of fare, and that is the limitation of our authority,

can commence to scratch the surface of this problem. And I believe that the awards of the War Labor Board made in that way—I believe that the Federal authority should have exerted itself to relieve the situation of these companies and then grant the increases; revive the patient first and then make him take up his work and pay the increased wages. Instead of that, they killed the patient first; and you gentlemen are sitting here on many of these companies, conducting a coroner's inquest.

Commissioner MEEKER. A question there. Suppose, as was maintained by the War Labor Board, that 48 cents per hour represented the minimum of decency for the average workman's family, are not you killing the patient if you do not provide a sufficient wage in order to enable the company to keep its labor force?

Mr. BLISS. What I complain about is, if you are going to kill the patient, kill him, kill him mercifully, but do not torture him by stringing it out. It is constant torture to add these burdens on him. Let us see what happened in the case of the Rhode Island Co.: The Federal trustees tried to operate this road under this revenue, and the New Haven stockholders, already tremendous losers by having anything to do with trolley roads, and robbed in all kinds of other ways, contributed \$300,000 in cold cash during the period of the Federal trusteeship to make up the deficits in operation. Now, why should the poor stockholder of the New York, New Haven & Hartford Railroad be bled and robbed of his money to try to keep this patient alive, if he is going to be killed by these various doses that are going to be applied to him?

Commissioner MEEKER. But how about the workingman? If he can not live on less than 48 cents per hour, are you going to subsidize the railroad by paying him less than a minimum subsistence wage in order to keep an industry alive and save the stockholders from losing money? That is a pretty fair question.

Mr. BLISS. If you are going to apply logic to the proposition—if there is not money enough in the business to pay a liberal and living wage, then stop the business. And I am not so certain but what before you reach a solution of this problem you have got to let this business go right to the dogs and then try to build up what you can out of the ruins. I do not know how you are going to get an intelligent public opinion applied to it unless you treat the public cruelly.

You can take a child, and that child goes over toward a hot stove—he does not know it is hot—and he starts to put his hand on it. You would say the merciful thing to do is to take that child and reason with him to the extent of his intelligence and explain to him that it is hot and he will certainly get his fingers burned, and gradually keep him from all that danger; but what are you going to do if the child pays no attention to you and finally puts his hand on the stove? He is burned and he finds it out.

I am not so certain but what the only way in which the public will find out that there is a problem here and to find out that it is necessary to arrive at a just solution of it is to permit a complete wrecking of these companies; and that is what is taking place with our Rhode Island Co. to-day. The application of these very greatly increased rates that are asked for will barely pay the operating ex-

penses and taxes without one cent of return upon capital investment in any way.

How are we going to solve the problem?

Commissioner MEEKER. The only point I wish to make there—the cost of living increased before the wages of the men operating street-railway cars were increased. That is always the history of wage increases. Now, if they could not live on less than 48 cents per hour wage, it was merely a question of giving them a wage increase which would enable the street-railway companies to keep the men employed in operating street-railway cars, else they would be drawn to other systems and your business would have died that way.

Mr. BLISS. Well, the thing that I disagree with, and I am yet to be convinced, is that any centralized authority should be able to say that we are not concerned in any way with the financial condition of these companies or their ability to meet these increases; that is no concern of ours. The State and municipal authorities must deal fairly with this situation; and then hand down an award that dates back from the middle of October to July 19, involving \$300,000 of back pay that the company has not got, after taking this \$500,000 of cash to make up operating deficits that was contributed by the New Haven Railroad to the trustees for the purpose of trying to keep this thing alive. The company has been operating since by its failure to pay the State its taxes, involving at the present time about \$180,000, and they made up the back pay of these men by failing to pay the towns the property taxes upon the property. The men had to be paid first. Now, we can not deal with this situation piecemeal; and the authority that can sit down on one side and say that the company must increase its expenses 20 or 25 per cent and point out no way of getting the increased revenue is simply complicating a situation already difficult.

Now, I wish you gentlemen would stop me whenever you get ready, because I am pretty nearly through anyway. I think that the remedy through increased rates has a natural limitation that we have almost reached, if not passed, in Rhode Island. Certainly we will reach if not pass it in considering this application now pending before us. When we have reached that point, the only remedy that will have been applied to the situation in Rhode Island will have been through three successive and substantial increases to the man who rides upon the car without any relief from any other source; and I say it is unfair to the man who rides in the car to contribute all these increases when the property interests are getting a substantial benefit through the continuance of trolley lines. And for that reason I say that we are going at it piecemeal. Some centralized authority ought to be able to deal with the situation. I sometimes feel that the old-fashioned form of tribal government was pretty effective, where when trouble arose the tribal chief sat up there and decided the difficulty; and there was no appeal to successive courts, but he settled it right then and there and it was settled. And I sometimes think, with our form of government, with a tendency toward centralization of authority in Washington, there ought to be some way where all the various elements of this problem could be dealt with in one proceeding rather than to have the labor end taken up by the War Labor Board, the rate end taken up by the

public-utility commission and the legislative body, and public authorities stand there shirking their duty. All three things ought to work together to accomplish the solution. I believe that every dollar saved through relief from taxes—and by that I mean the franchise taxes and paying obligations and Federal taxes—will prevent destruction of traffic that results from the increased fares. And I believe the real serious thing is that you are driving our people to other expedients of transportation, that you will never get back to the trolleys. I think the strike in Rhode Island had a tendency to force people to seek other expedients of transportation which they will continue to use. And I believe that the relief from taxes in Rhode Island, if the State relieves them from its taxes, part of which are franchise taxes, and a part representing the relief of the bonds and stock from taxation in the hands of the holder—I believe that relief amounting to some \$300,000 would go a great ways to help remedy our situation.

But the ultimate remedy has got to come from relief from taxation, the rates at the highest reasonable point you can put them, and the rest in the form of a subsidy on the part of the municipality served in proportion to the service rendered.

I neglected just one point, and I wish to call your attention to the commission's opinion, on page 5, and to the paragraph at the foot of the page. After summarizing the figures, showing that for the calendar year 1917 the company would fall short of paying operating expenses and fixed charges to the amount of \$2,111,578, the following statement appears:

These conditions have been created in a considerable degree by the direct and necessary intervention of the Federal Government.

Note the estimated annual cost of coal due to regulations of the Federal Government and based upon the tonnage, 91,000 tons used in the year June 30, 1918.

I asked that there be prepared an exhibit showing the items of increased cost of coal that was created by the direct and necessary intervention of the Federal Government, and those figures, as appearing by that exhibit, showed that of the increased cost of coal, \$468,989 of the increase was fixed absolutely by the direct and necessary intervention of the Federal Government in increasing the price of coal at the mines from what it was previously, increasing the cost of transportation, and the Federal Shipping Board's increasing the demurrage charge in the rate of transportation.

The increase in the annual Federal taxes paid by the Rhode Island Co., due to war conditions, amounts to \$90,300; the estimated annual increase in pay rolls due to increase in rates of wages by award of War Labor Board—this estimate of \$1,046,670 was exceeded, making the increase about \$1,250,000, because the board applied a 42½-cents-an-hour minimum wage for all adult employees. But even upon the lower basis the total increases due to the necessities of the Federal Government as indicated by the duly constituted authority amounted to \$1,605,959 out of a total of \$2,111,578 that the company apparently needed to simply maintain its solvency.

That shows the extent to which the problem was created away from home, and created directly by the intervention of the Federal Government. And under those circumstances it seems to me that

we in the States were left in a rather helpless position to try to remedy the difficulties. The other people applied the remedies, and simply said to us, "You pay the bill." And we had to try to produce the money. I think that concludes everything that I have to say, except to refer, in the body of our report, and this is for the purpose of the record, to the report of the commission, commencing on page 25. The commission calls attention to the more important factors which impose increased cost of operation upon the utility, and which are entirely beyond its power to remedy. And in the subsequent pages are indicated the taxation feature, the municipal franchises and agreements, the paving obligations, the system of municipal regulation, and the jitney competition. That, for the purpose of the record, will indicate to you where we have dealt in detail with the problem.

The CHAIRMAN. The testimony shows that you have been a very close student of the problem, Mr. Bliss, and your contribution has been exceedingly valuable.

Mr. WARREN. May I ask Mr. Bliss two or three questions?

As I understand your testimony, Mr. Bliss, you think that the Rhode Island Co., which is your principal trolley company in that State, could have taken care of the increased costs due to the war except for the increased costs of labor. Is that correct?

Mr. BLISS. Yes.

Mr. WARREN. And on page 6 of this report of your commission, No. 43, dated October 19, 1918, appears a statement of the operations of the company for the year 1917. Is that for the year ending June 30?

Mr. BLISS. Yes.

Mr. WARREN. And was that, or were those figures, relating to a period before?

Mr. BLISS. These figures are for the calendar year, as indicated.

Mr. WARREN. For the calendar year 1917?

Mr. BLISS. Yes.

Mr. WARREN. Were these figures for a period before any of these increases in rates were made?

Mr. BLISS. In 1917 there were none.

Mr. WARREN. There was no increase?

Mr. BLISS. There was no increase in rates. The first increase in rates was May 5, 1918.

Mr. WARREN. So that the fare at this time was 5 cents?

Mr. BLISS. Yes.

Mr. WARREN. And the gross receipts were practically \$6,000,000?

Mr. BLISS. Yes.

Mr. WARREN. And the number of passengers, I judge from that, was 180,000,000?

Mr. BLISS. Yes.

Mr. WARREN. On page 7 of Appendix B, in your large report, your earlier report—Appendix B being the report of the engineers, I think—near the bottom of page 7—

Mr. BLISS. You mean the preliminary report?

Mr. WARREN. Yes; the preliminary report of the engineers.

Mr. BLISS. I have it.

Mr. WARREN. Is a paragraph relative to power, in which it is stated that nearly 39 per cent of the total revenues was expended for labor?

Mr. BLISS. Yes.

Mr. WARREN. In the nickel chart on page 29 it appears that labor took 39.32 per cent?

Mr. BLISS. Yes.

Mr. WARREN. Those figures would indicate that nearly 2 cents out of each nickel went for labor at that time; would they not? If it had been 40 per cent, it would have been just 2 cents out of each nickel for labor?

Mr. BLISS. Yes.

Mr. WARREN. As I caught the figures in your testimony of increases in wages—all of which, I think, had been made since 1917—which you mentioned, they were \$300,000, \$1,250,000, \$640,000, or a total of \$2,190,000?

Mr. BLISS. That is correct. Those figures are not detailed figures, but they are practically the accurate figures.

Mr. WARREN. They are practically the accurate figures?

Mr. BLISS. Yes.

Mr. WARREN. In other words, the 40 per cent which was being paid in 1917 on \$6,000,000 would have been, roughly, \$2,400,000, and the increases since then have been almost as much, within \$210,000 of as much, which would make the cost per passenger of 1917 almost 4 cents, as compared with about 2 cents before—

Mr. BLISS. I have not figured that to be true—your computation.

Mr. WARREN. At any rate, the other figures are correct?

Mr. BLISS. Yes; the other figures are correct.

Mr. WARREN. On page 35 of that same report of the engineers, Appendix B—Appendix B in the report of March, 1918, of the special commission—is a chart giving the average rate of wage per hour for all labor costs on the road; and that shows the average rate in 1914 as what?

Mr. BLISS. The average of all?

Mr. WARREN. Yes.

Mr. BLISS. 25.1 cents per hour.

Mr. WARREN. 25.2, is it not?

Mr. BLISS. 25.2; yes.

Mr. WARREN. And in 1917, as what?

Mr. BLISS. The average cost was slightly over 28 cents—28 cents and a fraction.

Mr. WARREN. 28 cents and a very small fraction over?

Mr. BLISS. Yes.

Mr. WARREN. That is the average rate per hour of all labor on this company?

Mr. BLISS. Yes.

Mr. WARREN. And the figures now, as a result of this last settlement for the carmen—conductors and motormen—is, I think you said, 56 cents?

Mr. BLISS. 56 cents is the maximum. It runs from 51 to 56.

Mr. WARREN. But the high rate is 56?

Mr. BLISS. Yes.

Mr. WARREN. I do not suppose you know what the aggregate pay roll in 1914 was; do you?

Mr. BLISS. The figures are all in the report.

Mr. WARREN. Are they? The entire pay roll? If they are, then I can find them at my leisure.

Mr. BLISS. I think you can find them given in detail in this report.

Mr. WARREN. Roughly, the pay roll has been, so far as that rate would indicate in the chart last referred to, doubled since 1914? I think you said the rate was 25.1 in 1914, and is now something over 50 cents, the high rate being 56 cents?

Mr. BLISS. Of course, you have referred, in speaking of page 35, to the average cost of all labor. I am referring, when I speak of this 56 cents to the maximum, to the cost of conducting transportation.

Mr. WARREN. Oh, that is the transportation cost?

Mr. BLISS. Yes.

Mr. WARREN. In connection with the transportation increases recently made, what was done with the miscellaneous labor?

Mr. BLISS. They received their proportionate percentage of the increase.

Mr. WARREN. A corresponding increase?

Mr. BLISS. A corresponding increase. That applied to all lines of labor.

Mr. WARREN. Are you familiar with the reports of the National Industrial Conference Board?

Mr. BLISS. I am not.

Mr. WARREN. I would like to offer that, Mr. Chairman.

Dr. Meeker knows better than I how much value to place on it; but I received it last night, and it presents a weighted cost of living, showing the increase in the cost of living from July, 1914, to July, 1919, at 70.8 per cent—practically 71 per cent.

The CHAIRMAN. Do you want to present the whole report?

Mr. WARREN. Yes; I do not care to put it on the record but those figures I have given will go on the record.

I believe that the commission will find that since 1914 the wage increases on the street railways have been very nearly if not quite doubled; so that the cost of living, I think—assuming that that computation of the cost of living is a reasonable and proper one—the cost of living has been considerably more than taken care of in the increases of wages. I know that is true on certain companies with which I am very intimately connected.

The CHAIRMAN. I have just one question, Mr. Bliss: You stated that, directly due to the Government's intervention, the additional cost of coal to the company was \$468,989. Do you want to leave the impression with this commission that in the absence of Government intervention there would not have been an increased cost of coal to this company?

Mr. BLISS. Not at all. I simply wanted to show in that as I have stated, that these conditions have been created in a considerable degree by the directly necessary intervention on the part of the Government. I did not question the necessity of it. I said the necessary intervention, and I do not want to create any such impression, and did not intend to. You will note further on, in the report, upon page 13, that we have stated that "the wish of the Federal Government

as thus expressed through its duly constituted agencies should be a command in the present emergency; and these substantial raises of fare, to a large extent made necessary by Federal action as hereinbefore indicated, should be accepted by the public in such a spirit."

In other words, we do not desire to criticise the Government at all, and we assume that those things were absolutely necessary; but they were fixed by an agency entirely outside of the control of the commission and an agency outside of the control of the company, an agency to which both the company and the commission should bow in an emergency as it existed.

Commissioner SWEET. But you do not doubt but what there would have been an increase even if the Government had not interfered at all, do you?

Mr. BLISS. Not the slightest. I do not think that, under the conditions existing in the war, there would have been anything but increases. But one thing we were faced with was that the average price of coal for a period of 10 years in Providence was about \$3.43, and this company went through the war with the price very rapidly increasing until it got up to an average of nearly \$10 a ton; and at the present time it is down to about \$7; that is the existing rate there. I do not think there is any prospect of its going below that rate. That, applied to over 90,000 tons a year, is a very substantial amount. But the increases that were due to the Federal Government were far more than the total cost of all the fuel alone under the pre-war conditions.

Mr. WARREN. And the fuel was a very small amount, relative to the labor increase, was it not? As I remember it, it was \$400,000 or \$500,000, as against \$2,000,000.

Mr. BLISS. Fuel was a very small factor compared with the labor increase. The labor increase has been a very substantial increase. The other could have been taken care of and met by the remedies that we were attempting to apply.

(Witness excused.)

The CHAIRMAN. Mr. Ogburn, who is your next witness?

Mr. OGBURN. Mr. Chairman, Mr. Zenas W. Bliss, of Rhode Island, who is chairman of the State tax commission, and a receiver of the Rhode Island Co., has consented to make a five-minute statement relative to certain phases of the taxation problem, supplementing the statement by Mr. William C. Bliss.

The CHAIRMAN. We shall be pleased to hear you, Mr. Bliss.

STATEMENT OF MR. ZENAS W. BLISS.

Mr. BLISS. I might state, for the purposes of the record, that I am chairman of the Rhode Island State Tax Commission, one of the receivers of the Rhode Island Co., appointed at the suggestion of the attorney general. I do not represent any financial interests in the receivership. I was also chairman of the commission which submitted the report of March 18, 1918, to the General Assembly of Rhode Island.

It may be of passing interest in this connection to state very briefly the complicated system of taxation which Rhode Island applies to its street railroads. There is no State centralization of the taxing power in Rhode Island. The tax commission has no

pien-ry powers whatever; merely advisory. The tax commission assesses certain taxes, all property taxes, except in the case of certain very minor franchise taxes upon nonoperating corporations. The Rhode Island Co. pays a property tax—that is, upon its real estate and tangible personal property—in all of the municipal jurisdictions in which it operates. It is also liable to pay a franchise tax in each municipal jurisdiction. These franchise taxes are somewhat controlled by the general law, in that it limits them both up and down. In some municipalities they are not allowed, under the general law, to charge less than a certain per cent. In others they are allowed to charge up to a certain per cent.

There is a rather peculiar condition in some of our towns, where the town is divided into fire districts. They have delegated to them these district—the taxing power—and so they put on a tax in addition to the regular municipal tax, based upon the local municipal valuation. So that in many towns the railroad company has to pay two property taxes.

The State imposes a 2 per cent gross-receipt franchise tax and also a 1 per cent gross-receipt tax, which is, or at least has been, up to the present time, considered a property tax in lieu of any tax upon the stocks and bonds, securities, and other intangible property in the corporation in the hands of the holder or owned by the corporation itself.

The city of Providence imposes a franchise tax of 5 per cent upon the gross receipts of this corporation within the city limits, that, in addition to the taxes imposed by the State, making 8 per cent tax upon the gross receipts of the Rhode Island Co. within that jurisdiction. Of course, that is the largest jurisdiction; so far as receipts are concerned; and about 65 per cent of the total gross receipts of the company are collected within the municipal boundaries of the city of Providence.

I have not the figures brought down exactly to date, but the last available information is to the effect that the total taxes imposed upon this company are approximately 12½ per cent of the gross receipts. It is one of the most heavily taxed public utilities that I know of in the country, and, of course, the taxation is very excessive.

The commission recommended that all of these taxes, except the property taxes and the franchise taxes by the State, be eliminated; and I think that, in view of recent developments, it will be necessary for the franchise tax imposed by the State also to be eliminated.

The property tax by the State—1 per cent upon the gross receipts in lieu of any tax upon the stocks and bonds in the hands of the holder and the intangible property of the corporation—is generally considered by the business men of the community to be a very fair tax, and one advisable for the company to pay if it can. It provides a perfectly positive method of collecting at the source the tax upon the stocks and bonds, and, of course, relieves the holder from paying that tax, and naturally increases the value of those securities and makes them very much more desirable investments for local investors. That is considered advisable on the theory that it is advantageous for the stocks and bonds of public utilities to be held, so far as possible, locally.

I think a great improvement in this matter could be brought about by having the property taxes assessed by some central authority.

It would relieve the company of a great deal of unnecessary expense and trouble. They have to make returns in 26 jurisdictions, and in some of those jurisdictions two returns; and you get the inequality which always accompanies appraisal by a number of different appraising bodies without any equalizing influence applied.

The tendency has been to tax the property of this company at a higher percentage of its full value than other property in the same jurisdiction, with the exception of the city of Providence. There the assessments are about the same as other business property, between 80 and 85 per cent of the full value.

I am inclined to think, or I am of the opinion, that the property taxes, taxes upon the real estate; buildings and improvements, should be maintained. I see no reason why the passenger should not contribute toward paying the taxes upon the property which he uses.

Of course, if we are confronted with a situation where the passenger can not pay the cost of his transportation and it must be made up of some form of subsidy as well as by reducing taxation, why then, of course, the tax upon the real property as well as the franchise taxes should be removed.

The paving obligations and other obligations imposed by the municipalities are particularly heavy in the case of the Rhode Island Co. The streets are very narrow, and in many cases crooked, and that means that, under the present agreement, where paving between the tracks and 18 inches on each side of the tracks has to be maintained by the company, practically the whole of the street-paving obligation falls upon the railroad company. Our principal business street is very narrow and has a track right down the middle of the street; and I should think that the track and 18 inches on each side is more than half the total width of the street.

The climatic conditions in Rhode Island, of course, in the winter are very severe, and the streets being cleaned, so far as the tracks are concerned, by the snow plows of the company, practically throws all of the traffic onto the right of way of the company during many of the winter months, and that is imposing an excessively heavy burden of wear and tear upon that part of the highway maintained by the railroad company, thus increasing the heavy burden.

Certain street improvements were made. They were undoubtedly of considerable advantage to the railroad company, and the railroad company should pay a certain proportion of the cost of those improvements; and now, the road being bankrupt, of course they can not meet their obligations, and probably never will be able to meet those obligations.

I am also of the opinion that that kind of an expense placed upon a trolley company is very inadvisable. It is not the province of the passengers upon a trolley company to pay for the permanent improvements of a municipality. A man coming from 12 or 15 miles distant, with no interest whatever in the municipality except to trade there, under that agreement is forced to pay part of the improvements which accrue to the benefit of those people who are in those immediate neighborhoods.

That is all I have to present. I shall be very glad to answer any questions that any of the members of the commission may desire to ask me, so far as I can.

The CHAIRMAN. I think you have presented your ideas so clearly that cross-examination will not make them any clearer.

Mr. WARREN. I would like to ask one question.

Beginning with 1914, this particular company, the Rhode Island Co., has been under the control either of trustees appointed by the Federal court or of receivers appointed by the State court of Rhode Island; has it not?

Mr. BLISS. Yes.

Mr. WARREN. The company itself has not at any time been in control of the company?

Mr. BLISS. Not since 1914.

(Witness excused.)

The CHAIRMAN. Who is your next witness, Mr. Ogburn?

Mr. OGBURN. On yesterday I called to the attention of the commission an offer made by the Public Utility Commissioners of New Jersey to present, if necessary, a statement relative to their recent action on the Public Service Co. of New Jersey. They have sent, this morning, a report which states it so fully that I assume it is not necessary to have any member of the commission come in person. We have, however, present Mayor Gillen, of Newark, N. J., who has consented to discuss before the commission certain phases of the New Jersey situation.

The CHAIRMAN. We shall be glad to hear Mayor Gillen.

STATEMENT OF MR. CHARLES P. GILLEN.

Mr. GILLEN. You gentlemen want me to give you some idea of conditions as they prevail in our section? Is that the idea?

The CHAIRMAN. The purpose of this commission is to ascertain the general situation applicable to the street-railway industry, and of course the local situation bears upon the general one, so we shall be very glad to hear anything you have to say on the subject.

Mr. GILLEN. In Newark, N. J., we have this keen competition going on now between jitneys and street cars, and the number of jitneys is increasing from time to time. The jitneys came about three years ago. The street-car service had been deteriorating and was inadequate, and we needed some additional transportation facilities in the streets of Newark. So the jitneys came in time to help us out. We now have operating there about three hundred and some-odd busses.

The CHAIRMAN. What is the population of Newark?

Mr. GILLEN. About half a million; and there is about another half a million in the adjoining towns.

The trolley fares were increased within a year to 7 cents. We used to have a 5-cent fare with free transfer privilege. Now the fares have been increased to 7 cents, with 1 cent for a transfer.

We have been contesting that before the public-utilities commission and in the courts, and the higher fares were upheld in the State courts.

Then the company promised to bring in a zoning plan, which has just been submitted. The company wants 3 cents for the initial mile and 2 cents for each mile thereafter. There is considerable objection to that from the towns near the city.

The CHAIRMAN. Is that rate now in effect?

Mr. GILLEN. No. It is going into effect pretty soon. I do not know just the exact date. I think the utilities commission has communicated with your secretary regarding that, has it not, Mr. Ogburn?

The CHAIRMAN. Well, you have answered it. It is not in effect.

Mr. GILLEN. No. The trouble, of course, with our street-car problem in Newark is the trouble that they have in many other municipalities all over the country—the amount of water in the stock. For instance, the Public Service Railway Co. of New Jersey has outstanding securities amount to about \$160,000,000, and it is estimated that about \$60,000,000 of that represents actual value, and about \$100,000,000 worth, water; and they are asking us, from time to time, to pay dividends and profits on this vast amount of watered stock. This Public Service Corporation operates all through the State. They have gone out in the State in various places, and taken over little lines that had a very small amount of business, and the operation of which must be very unprofitable; and in Newark, where the business is very profitable, we are supposed to maintain all these little lines running through the country, where the travel is very small; and we are supposed to pay profits on these and all this watered stock, and rentals—the company has to pay very heavy rentals to the leased companies. All this expense is very heavy, and I do not know where it is going to wind up. The people object to the increased fares. The jitneys are charging only 5 cents, and the number of jitneys is increasing from time to time; and I think eventually we will have more bus business in Newark than street-car business.

The CHAIRMAN. Do the buses run in connection with the street-car?

Mr. GILLEN. No. Almost each bus is owned by a different owner. Some owners have two or three buses, but in most cases it is an individual ownership for each bus.

Commissioner SWEET. What are the regulations controlling the busses, Mr. Mayor?

Mr. GILLEN. They have to take out a policy, a liability insurance policy, and file it with the local authorities, and then they have to pay 5 per cent on their gross receipts, and they are subjected to careful regulations and restrictions, city ordinances, and police regulation, etc.

Commissioner SWEET. Is there any defined route?

Mr. GILLEN. Oh, yes; each bus has its own route.

Commissioner SWEET. And time schedule?

Mr. GILLEN. Well, they try to force a time schedule, and in many cases they live up to it. The owners on each route get together, and they agree on a certain schedule. The city, however, does not interfere with that schedule to any great extent; but they operate on that schedule themselves; and we find it works out all right.

Commissioner SWEET. When were you elected, Mr. Mayor?

Mr. GILLEN. A year ago last November.

Commissioner SWEET. Was the street-railroad problem an issue in the campaign?

Mr. GILLEN. It has always been an issue in every campaign.

Commissioner SWEET. There has been considerable popular sentiment against the street railroads, has there?

Mr. GILLEN. Yes; because of the poor service. There has been considerable-discontent over the service there, and I think Newark has suffered a great deal from poor service—poor street-car-service.

Commissioner SWEET. Of course, Newark has been growing very rapidly.

Mr. GILLEN. It has. It has grown so rapidly that it grew beyond the powers of the street-car company to give proper service.

Commissioner SWEET. Do you know whether the street-car company of Newark now is receiving enough income to pay its running expenses?

Mr. GILLEN. It claims it is just about paying expenses.

Commissioner SWEET. Including interest upon its actual value, to say nothing about the watered stock, but the actual value of the properties?

Mr. GILLEN. Yes; I believe so.

Commissioner SWEET. You think it pays interest on that and operating expenses?

Mr. GILLEN. I do not know whether they are getting in enough now to pay dividends.

Commissioner SWEET. I did not understand that.

Mr. GILLEN. I do not think they are getting enough now to pay dividends.

Commissioner SWEET. Any dividends at all?

Mr. GILLEN. You see they have been changing. In April it was a 6-cent rate, and then they changed in May again to a 7-cent rate, and they are just figuring as they go along. According to their own statements they are leading a sort of hand-to-mouth existence.

Commissioner SWEET. You have had no valuation of their properties?

Mr. GILLEN. Yes.

Commissioner SWEET. Have you?

Mr. GILLEN. Yes.

Commissioner SWEET. And that is \$60,000,000, about?

Mr. GILLEN. Yes; our experts have made a valuation of about \$60,000,000.

Commissioner GADSDEN. Has the commission made a valuation? Has not the commission found a value of the railway property?

Mr. GILLEN. The public-utilities commission?

Commissioner GADSDEN. Yes.

Mr. GILLEN. I do not know that they have made any valuation. They have testimony from both sides.

Mr. GADSDEN. Are not they predicating these rates on a valuation of some kind?

Mr. GILLEN. Yes.

Commissioner GADSDEN. But not on the watered stock? I mean, the commission is acting with reference to the real value of the property?

Mr. GILLEN. No; they are considering the watered stock, because all these leased companies have to be paid their rentals. The rentals are guaranteed to the leased company and they have got to pay them, and the moment they stop paying those rentals the lease is broken.

Commissioner BEALL. When you say \$60,000,000 do you mean the railway property in the city, or does that include anything outside?

Mr. GILLEN. The State.

Commissioner BEALL. Have not they more than that in the State?

Mr. GILLEN. The whole property of the Public Service Railway Co.

Commissioner BEALL. You are speaking of the Public Service Co. and not of the property in Newark?

Mr. GILLEN. Yes; all their property in the State.

Commissioner GADSDEN. And you think the whole railway property in the State is worth not in excess of \$60,000,000?

Mr. GILLEN. Yes.

Commissioner BEALL. Who did you say made that valuation, Mr. Mayor?

Mr. GILLEN. Mr. Mark Wolfe, Dr. Wilcox, and some other experts that the cities of New Jersey have engaged recently in this controversy before the public-utilities commission.

Commissioner SWEET. Dr. Wilcox is here.

Commissioner BEALL. May I ask one question? I want to get that clear, because I had not heard their value stated. When you say \$60,000,000, that includes the leased values, too?

Mr. GILLEN. Yes.

Commissioner BEALL. They have a peculiar system up there. Some they lease, some they own all the securities of, some they own the bonds of but not the stock, and in others they own the stock but not the bonds. Is that value of \$60,000,000 the value of everything they own?

Mr. GILLEN. Yes.

Commissioner BEALL. Or lease—or have any connection with?

Mr. GILLEN. Yes.

The CHAIRMAN. Have you any other statement you wish to make?

Mr. GILLEN. I do not know. I did not come prepared. I thought I would be asked some questions about local conditions there which I would be very pleased to answer.

The CHAIRMAN. Well, you have thoroughly explained the jitney competition and the form of regulation; and you think that eventually the street-car system may not be able to subsist in that city on account of competition?

Mr. GILLEN. Not with increased fares.

The CHAIRMAN. We thank you very much.

Commissioner GADSDEN. I would like to ask one question to make the record a little clearer. Does the city of Newark regulate the operation of jitneys by ordinance?

Mr. GILLEN. By ordinance.

Commissioner GADSDEN. You mean the rate?

Mr. GILLEN. There is a State law first, and then the State law gives the municipalities additional power to enforce additional regulations. The State law compels the municipalities to force the operator and owner of the jitney to file an insurance policy to protect the public against damage, and so forth, and there are some other regulations.

Commissioner GADSDEN. Is there anything else? Does the ordinance prescribe a certain route for the jitney—make him keep a certain schedule every day during the year?

Mr. GILLEN. Yes; there is an ordinance which gives the traffic officer or the supervisor of traffic the right to prescribe these routes, and permits are granted.

Commissioner GADSDEN. In bad weather, when the jitney does not run, what happens in Newark? Do you enforce a fine on him if he does not run that route?

Mr. GILLEN. Yes; if they do not live up to their agreement and regulations their license is taken away—their permit is taken away.

Mr. WARREN. How large is the bond? How is that fixed?

Mr. GILLEN. What is that?

Mr. WARREN. How large is the bond?

Mr. GILLEN. \$5,000.

Mr. WARREN. For each vehicle?

Mr. GILLEN. Yes.

Mr. WARREN. Regardless of the size?

Mr. GILLEN. Yes.

Mr. WARREN. A little Ford would pay the same as one of the big buses?

Mr. GILLEN. There are very few Fords now running as buses; they are mostly all large sizes.

Mr. WARREN. They are mostly buses?

Mr. GILLEN. Yes.

The CHAIRMAN. That is all, Mayor Gillen. Thank you very much, indeed.

Your next witness, Mr. Ogburn?

Mr. OGBURN. I think it might be well, as Mayor Gillen has omitted it, to state the effective date of this order which came in this morning, which makes it September 14, I believe.

The next witness is Mr. Wilcox, of New York.

STATEMENT OF MR. DELOS F. WILCOX.

The CHAIRMAN. Mr. Wilcox, you know so much about this problem that the commission will not indicate to you the lines you could pursue. What we want is your helpful suggestions, as well as your comments upon the problem.

Mr. WILCOX. The problem is so intricate that it is hard to tell where to begin and what course to take and where to end.

When Sir Eric Geddes introduced the Government's bill for a ministry of ways and communications in the House of Commons on March 17 of this year he said:

Except in the one bright instance of the municipal tramways, the transportation systems of this country (that is, Great Britain) are not prosperous. Taken all over, these undertakings (the municipal tramways) are earning 7 per cent on their capital. I do not think that I am exaggerating or using extravagant words if I say that with the exception of the municipal trams, which hereafter I will leave out of reference altogether, the transportation systems of the country are financially in a semiparalyzed state.

When this statement was called to my attention by two of the tramway managers of British tramways, in correspondence, it struck me as being so important as showing the contrasted condition between the municipal tramways of Great Britain and the street railways of the United States that it required study and explanation.

There are two or three conditions which distinguish the British policy with respect to tramways from the American street-railway

policy which I think ought to be pointed out as bearing upon the problems which this commission has before it.

In the first place, in Great Britain, beginning with Glasgow in 1894, practically all of the principal cities municipalized the trams prior to electrification, and therefore electrification and the subsequent expansion of the tramway service was made subject entirely to the dictates of public policy.

The London County, Liverpool, Birmingham, Manchester, Sheffield, Salford, Bradford, Hull, Newcastle, Belfast, Aberdeen, and about a hundred other British towns have municipal systems, and for the most part the company systems are smaller systems in the smaller towns. The only large cities that I know of that have company systems now are Bristol, England, and Dublin, with the London omnibus system and the London underground system privately owned.

It is unnecessary to make any detailed statement of the contrasting facts with respect to conditions in this country. As you know, the first important municipal experiment in ownership and operation of street railways in this country was that of San Francisco, starting in December, 1912, with the Geary Street Railroad, which has developed into a very considerable municipal system which is being operated in competition with and supplementing the system of the United Railroads. The Seattle experiment, taking over the entire system of street railways, of course has been in operation only three or four months. And the Boston experiment is not an experiment in public ownership and operation but an experiment in operation by public trustees on behalf of the private owners.

Aside from this matter of general policy as distinguished between municipal and private ownership and operation, the first thing that strikes one who has studied the history of street railways in this country and has become somewhat familiar with the policies abroad—not through personal study abroad but through studies and reports in conversation with others—is the difference between the conservative constructive financial policy pursued by the British tramways and the extremely reckless financial policy that has characterized the street-railway business of this country almost universally. The promoters and banking syndicates that got control of the street railways of this country in the nineties at the time of electrification. I am satisfied as the result of my study and observation, made the electrification of the street railways the occasion for doing all that they could, humanly speaking, to wreck the street-railway industry, and the results of it are with us to-day and can not be escaped without a thorough housecleaning, overhauling, and getting the street-railway business down on to a sound, instead of its present rotten, financial basis. I think that is almost universal in the history of the development of electrification and the expansion of the street-railway industry following in connection with it.

Now, Glasgow took over the horse-car lines and proceeded to electrify. Out of the earnings of the system, with low fares and excellent service, it has paid off every dollar of the cost of the street railway system, so that it does not have a penny of fixed charges at the present time. It has set aside in addition to paying off the entire capital a large amount for depreciation reserve and renewals. It has contributed something like \$4,000,000 during the course of the

23 years to the relief of taxes besides paying regular rates and taxes which in 1918 amounted to about 5 per cent of its gross receipts, which is not quite as high as some American systems pay.

Liverpool is a close second to Glasgow. It has paid off half of its debt and has accumulated sinking funds for about 60 per cent of the other half and it has depreciation reserves set aside and accumulated which, if they were applied to the debt, would finish the payment of the debt.

Other British cities, while perhaps the results have not been quite as striking, have pursued and are pursuing the same policy; while in this country under private management it has been the rule, and is still the rule, that there shall be no reduction in the capitalization unless it is forced through receiverships, and then the reduction shall be made as little as possible. The effort of the organization is not to get the capital down as low as possible, generally speaking, but to keep it as big as it can be kept and still worry along in some way in the hope of the future.

Even under public regulation it is not the theory of State regulation that the investments in street railways should be amortized. They are considered as a perpetual investment, with the result that on the basis of the strict system of accounts the benefit of the doubt, if any, is given, I think, on the whole, to increasing the capital account rather than decreasing it. It is only in a few isolated cases where companies have to have franchises under which a portion of their property at the end of a certain period will revert without payment to the city that the commissions require the amortization of the investment. The commissions have had no power to undo or do over the past. They have merely had power to see to it that future securities represent property. And even in that connection the desire of the companies to issue securities at comparatively low rates of interest has resulted in the issuance of a great amount of securities, even under commission regulation, at considerable discounts, although the commissions, as a rule, require that the bond discount, amounting sometimes to as much as 20 per cent, shall be amortized over the period of the bonds. The commissions have had no jurisdiction over the holding companies which have sprung up everywhere for the purpose of manipulating the securities of street railways; and, if we were to accept their description of their function, financing them. So that the process of piling capitalization up has been going on right along, ever since commission regulation went into effect. But this unregulated capital, these bonds and stocks, are not bonds and stock of the street-railway companies themselves, but of the companies that control the street-railway companies and control their policy. So that in an important sense the effect is the same.

I do not know anything more striking in the way of contrast between two policies, and I know nothing more striking in results, than the contrast between the financial policy of the British municipal tramways and the financial policy of American street railway companies.

I spoke of depreciation reserves, ample depreciation reserves, being set aside by the British municipalities. In this country, as everybody who has studied the matter at all admits on both sides of the argument, very inadequate allowances have been made for depreciation,

often none at all; so that now it has become one of the main contentions of the electric railways before courts and commissions that the property, if it is reasonably well maintained, should be valued for rate purposes as if it were not depreciated at all—directly contrary to the repeated decisions of the United States Supreme Court. But the companies have not made provisions for depreciation. They have put the carrying of fixed charges, largely the result of inflations, before depreciation, and the result is that they have not made provision for depreciation and now they insist that their property is worth as much old as if it were new.

Now, the second main line of contrast between the two systems that I have noticed is with respect to fares. We have in this country—both the companies and the municipalities—cultivated the uniform flat fare, in general, for the boundaries of an individual municipality, and where municipalities are close together, where suburban municipalities join directly on the major municipality, the 5-cent area and 5-cent zone is even extended beyond the limits of the municipality. I suppose that if American cities can be said to have had any policy with respect to street railways and street-railway service it has been that they should get the uniform flat fare with free transfers.

Now, in Great Britain—I do not know how far back it goes, perhaps it goes back to the beginning—but as far back as I know anything about it, the system of charges has been entirely different. The fares have been arranged according to the distance traveled, and the result appears to have been that the municipalities and also the companies have been able to give very low fares for short rides, while the long rides, because of the low initial fare, have not carried a very high fare, although the fares, of course, have gone above 5 cents in some cases.

To illustrate this again from Glasgow—Glasgow is an extreme illustration, because Glasgow is the premier British city with respect to tramway policy—in the year ending March 31, 1918, the Glasgow tramways received 40 per cent of all their revenues from passengers who paid only 1 cent each—that is, a half-penny. Only between 2 and 3 per cent of all the passengers carried paid as much as 5 cents in our money.

In most of the British cities, on account of war conditions, and increasing costs which have struck them, as well as American street-railway systems, they have been compelled to increase their fares; but they have increased their fares either by shortening the zones or by abolishing the halfpenny fares and making the minimum what is the equivalent of 2 cents in our money. Liverpool and most of the other cities have done that. And yet, with that higher fare, the percentage during the calendar year 1918 of passengers in Liverpool paying 5 cents was no greater than in Glasgow, between 2 and 3 per cent.

In this country we have had this uniform fare with either the flat 5-cent fare, or a lower fare by reason of the sale of tickets, or, as in Cleveland, a 3-cent or a 4-cent fare applying uniformly throughout a given territory. Now that the costs have gone up so that the companies have felt the need of greater revenues and have come in for increases in fares, the increase in the uniform flat fare above 5

cents has had a very bad effect upon traffic, and if fares keep on going up—to 10 cents, as they have in Boston and Pittsburgh—on a flat-fare basis, we do not have to know anything about it from experience to see that the people who ride because it is convenient, not because they have to—the short riders—will stop riding. They will take other means of transportation, or walk. And the result is, and experience so far as we have had it in this country now shows, that the increase in the unit fare above 5 cents has a very deleterious effect upon traffic, especially short-haul traffic, and has a tendency to develop and encourage competition by other means of transportation, with the result that the street railway now is becoming every day, with the increases of fares in this country, less of a public utility. The companies feel themselves so hard pressed for funds that they are not concerned, generally speaking, with any other policy, with any other question, except how to get more revenue; and if they can get more revenue from 50 per cent of the traffic they will take it irrespective of the ultimate effect upon the street-railway industry, and the ultimate effect upon the street railway as a utility, and the effect upon the public.

Now, it seems to me that in the contrast that is shown between British conditions and American conditions during the war and in this great economic crisis, the advantages, from the financial point of view at least and from the point of view of transportation service to a large number of people, of the British system are apparent.

The question will be raised and has been raised frequently as to the effect of the zone system upon congestion and crowding, and I do not suppose that enough intensive study of the two systems has been made so that those of us who have always been flat-fare men, on the theory that the flat fare would tend to spread out the population, would be justified in jumping to the opposite conclusion, that the zone system will not in any appreciable degree affect the housing and congestion problem. At the same time, a more careful study than I ever had made before of the British system, based largely on the detailed reports made by Mr. Walter Jackson, who went abroad last winter and spent three months studying this very problem for the purpose of making the experience of Great Britain and the practices of Great Britain available to the street-railway industry in this industry at this time when the zone system is being considered—based upon that, I say, I am pretty well satisfied that we have at least exaggerated the effect of the flat fare in spreading out population.

Some of our interurban developments are not really in line with the public welfare. I know no particular reason why a city should be built up in a straggling manner with realty developments away out in the country with large stretches of unoccupied and unbuilt-up territory between. The flat fare, if it is carried to too great an extent, just merely caters to the real-estate speculators, and it is well known that many of the street-railway systems of this country have been overbuilt by reason of the pressure brought upon the companies by people interested in outside real estate—sometimes the owners of the companies themselves.

To illustrate perhaps a little more clearly the contrast between the American and British situations with respect to finances and traffic,

I have prepared here a little exhibit—it was not prepared for this purpose, but I bring it here and will hand it in—showing certain statistics for the municipal tramways of Glasgow as compared with statistics for the Public Service Railway Co. of New Jersey.

The statement referred to by Dr. Wilcox is as follows:

Glasgow Municipal Tramways compared with Public Service Railway System with respect to traffic, revenues, capitalization, etc.

[Glasgow data taken from annual report for year ended May 31, 1918; Public Service Railway data taken from annual report filed with board of public utility commissioners for calendar year 1918, and other exhibits in the Public Service Railway rate case.]

Item.	Glasgow.	Public Service Railway.
Population served.....	1, 150, 000	1 2, 111, 955
Passengers carried.....	430, 946, 566	2 404, 991, 768
Rides per capita.....	375	192
Total passenger revenue.....	\$6, 833, 102	\$19, 102, 346
Average fare paid by passengers..... cents.	1.56	4. 72
Proportion of passengers paying 5 cents or more..... per cent.	2.25	76. 22
Car-miles run.....	26, 261, 231	53, 250, 832
Passengers per car-mile.....	16. 41	7. 61
Kilowatt hours of power consumed per car-mile.....	1. 56	3. 73
Mileage of main track.....	198. 25	790. 23
Net debt per mile.....	(8)	1 \$105, 367
Net capital stock per mile.....	(8)	2 \$979, 756
Passengers carried per mile of main track.....	2, 173, 753	512, 498
Passenger receipts per mile of main track.....	\$34, 416. 66	\$24, 173. 15

¹ This is the number of passengers paying individual fares as estimated by the company in its zone report (Exhibit P-316, p. 145), plus the number of transfer passengers.

² In Glasgow, where the zone system is in effect, no transfers are given. Thus the number of passengers carried means in each city the number of separate car rides given to passengers other than "deadheads."

³ The Glasgow tramways were acquired by the city in 1894 and were soon thereafter electrified. The entire bonded indebtedness was paid off out of earnings by 1917, and up to May 31, 1918, the tramways had contributed \$4,781,000 to the "common good" for the relief of taxation. Of this amount \$864,000 was contributed in 1918. The tramways also pay taxes directly, which in 1918 amounted to \$380,867, the equivalent of 5.57 per cent of gross receipts, as compared with 8 per cent paid by the Public Service Railway Co.

⁴ Includes with bonds the sum of \$1,169,118 advanced by United States Shipping Board Emergency Fleet Corporation for extensions and additions in 1918; also \$150,000 bonds of Paterson State Line Traction Co., a subsidiary whose trackage is included in Public Service Railway system.

⁵ Includes with capital stock \$3,475,347 of capital supplied by Public Service Electric Co., upon which Public Service Railway Co. pays a fixed charge of 6 per cent per annum.

Construction cost of Glasgow system, including power plant, shops, and everything complete.....	\$18, 798, 968
Capitalization of Public Service Railway system.....	\$160, 514, 150
Construction cost, Glasgow system, per mile of main track.....	\$94, 825
Capitalization, Public Service Railway system per mile of main track.....	\$203, 123
Construction cost, Glasgow system, per passenger carried (in a year)..... cents.	4. 36
Capitalization, Public Service Railway system, per passenger carried (in a year)..... cents.	39. 67

Commissioner MEEKER. This is for all New Jersey?

Mr. WILCOX. That is for the Public Service Railway system of New Jersey. The Public Service Railway system of New Jersey operates in Newark and the surrounding community, Jersey City and the surrounding communities, Elizabeth, New Brunswick, Rahway, and central Jersey towns, and also in Camden and the surrounding communities, also in Paterson and Passaic and—

Commissioner BEALL. Was there any particular reason for comparing that with the Public Service Co.? Because they are entirely

different classes of companies. One is all together in a very closely congested city and the other spreads over an entire State, and the conditions are entirely different. Was there any particular reason for comparing them?

Mr. WILCOX. The reason for comparing them was that I was on the New Jersey case and I had the knowledge about the New Jersey case.

Commissioner BEALL. Well, you see what I mean. They are not comparable at all.

Mr. WILCOX. Certainly. And the difference due to the fact that Glasgow is a city system while New Jersey is a combination of city and interurban systems no doubt emphasized the contrast. But in considering this exhibit you will have to make allowances for that. The point I want to bring out—

Commissioner BEALL. I would like to ask you, too, what is the mileage in the city of Glasgow.

Mr. WILCOX. One hundred and ninety-eight miles. That is given on the exhibit.

Commissioner BEALL. In any American city with that population the mileage would be probably three or four times that, would it not?

Mr. WILCOX. It would be somewhat more.

Commissioner BEALL. Well, not somewhat more; it would be a great deal more.

Mr. WILCOX. Well, it would be—

Commissioner BEALL. It would be two or three times as much, would it not?

Mr. WILCOX. Well, it would be—

Commissioner BEALL. As a matter of fact, Glasgow does not serve the population like American cities except in the densely congested districts.

Mr. WILCOX. I am informed by Mr. Jackson, who made a special study of Glasgow, that he was unable to find any lack of street-railway service in Glasgow and Aberdeen and the British cities as compared with American cities. It is true that Glasgow and Aberdeen at the present time are planning to build certain extensions, but it is just the ordinary amount of extensions that an American city is building from time to time.

Commissioner BEALL. Now, Glasgow, compared to American cities, has made practically no extensions, has it, for quite a number of years?

Mr. WILCOX. Well, I think not during the war. I think that they have not made any.

Commissioner BEALL. Well, I mean compared to an American city, they have spent practically nothing on extensions?

Mr. WILCOX. Well, various American cities have done very differently. Many American cities have not built any extensions for 10 or a dozen years practically before the war.

The CHAIRMAN. Proceed with your statement.

Commissioner MEEKER. May I ask if you could give us an exhibit comparing Newark alone?

Mr. WILCOX. I can not.

Commissioner BEALL. Or with Detroit, some similar city.

Mr. WILCOX. I can not.

The CHAIRMAN. Proceed with your explanation.

Mr. WILCOX. This shows that the population of Glasgow as given by the report is 1,150,000, while the population served by the Public Service Railway in New Jersey in 1915 according to the 1915 census was 2,112,000, approximately.

The number of passengers carried on the Glasgow system was 430,000,000; on the New Jersey system about 405,000,000.

I should explain what those figures mean. In Glasgow, with the zone fare and the low initial rate, there are no transfers; consequently every time a person gets on a car he is counted as a passenger. In order to reduce the public-service-railway figures to the same basis, I took the number of passengers for 1918 as estimated by the company in its zoning report, where they eliminated the double fares. In their regular statistics, every time a passenger pays 5 cents he is counted as a separate passenger, but in order to estimate what would be the result of the zoning system, they established a percentage of the total number of riders who paid a second fare and applied it to the revenue passengers and got a figure, which, as I remember, was 335,000,000, or approximately that; I have not the exact figures. But at any rate, I took that figure which represented all of the individual passengers who paid fares and added to it all the transfer passengers who, under the Glasgow system, would pay fares.

Commissioner SWEET. So as to get that on the same basis?

Mr. WILCOX. So as to get that on the same basis. These figures mean rides.

Now, the rides per capita in Glasgow are 375; in New Jersey, 192.

With a larger number of passengers Glasgow received \$6,833,000 of revenue, while the Public Service Railway received \$19,102,000 of revenue.

The average fare paid in Glasgow was 1.56 cents in our money. The average fare paid in New Jersey was 4.72 cents. That, as I say, includes the transfer passengers; it also includes the 7-cent fare for two and a half months of the year, from October 15th to the end of the year 1918.

The proportion of passengers paying 5 cents or more was 2.25 per cent in Glasgow. On the Public Service Railway system, including the transfers, 76.22 per cent.

The number of car-miles run in Glasgow was 26,000,000 and on the Public Service Railway about double, 53,000,000.

The passengers per car-mile in Glasgow, showing the density of traffic, were 16.41 and on the Public Service system, including the transfers, 7.61.

The mileage of main track in Glasgow was 198.25 and on the Public Service Railway, 790.

The net debt per mile in Glasgow was nothing. On the Public Service Railway system it was \$105,367.

The net capital stock in Glasgow was nothing and on the Public Service Railway \$97,756 per mile.

Passengers carried per mile of main track in Glasgow, 2,173,753; Public Service Railway, 512,498.

The receipts per mile of main track in Glasgow were \$34,416, as contrasted with \$24,173 on the Public Service Railway system.

The Glasgow construction cost, including power plant, shops, and complete system, was \$18,798,968. The capitalization of the Public

Service Railway system, the cost, the actual cost or the reproduction value not having been finally fixed as yet, was \$160,514,150. So that we have with Glasgow a concentrated city system with power station and a vast amount of equipment, frequent service, first-class tracks, costing \$94,825 a mile, while the capitalization of the Public Service Railway system, spread all over the State of New Jersey, is \$203,000 a mile. The Public Service Railway power stations have been alienated; so they are not now represented in the property, though they are in part represented in the capitalization.

The construction cost of the Glasgow system per passenger carried in a year was 4.36 cents, while for the Public Service Railway system the capitalization per passenger carried in a year was 39.67 cents.

The CHAIRMAN. Is it convenient for you to stop at this point?

Mr. WILCOX. Yes.

The CHAIRMAN. We will adjourn until 2 o'clock.

(Whereupon, at 1 p. m., a recess was taken until 2 p. m.)

AFTERNOON SESSION.

STATEMENT OF D. F. WILCOX—Continued.

Mr. WILCOX. I had practically finished the discussion of that exhibit.

I realize perfectly well, and would not wish to convey any different impression, that there are other very important differences of conditions between Glasgow and the Public Service Railway system; but it seemed to me, for the purpose of bringing out in a striking way the distinction between the British and the American policies with respect to those two points—the finances and the treatment of investment and depreciation and the development of traffic through low fares for short rides—that this exhibit would be very interesting.

You have to discount the differences tremendously for other reasons, before you can explain away the great contrast on these two points; and while I think the Public Service Railway Co. in a measure represents an extreme condition with respect to American Street Railways, and the Glasgow tramways represent a somewhat extreme condition with respect to British tramways, still there is enough left of the contrast to require a very good explanation.

The CHAIRMAN. May I interject one question there, Doctor?

Mr. WILCOX. Certainly.

The CHAIRMAN. The evidence before us in a number of cases shows that the labor cost approximates about 4 cents per passenger, or per 5-cent charge. Is there a sufficient difference in the labor costs of Glasgow and of this country to make up for the large difference in the fares charged?

Mr. WILCOX. There is not sufficient difference. The British labor rates, generally, as I am informed, are now since the increases of the war, about where ours were for trainmen at the beginning of the war; so that there is no doubt now a very considerable differential in favor of the British tramways, on account of lower wages, although wages have increased there 100 per cent or more during the war.

The CHAIRMAN. Do you know if that increased wage had any effect upon the exhibit which you have filed?

Mr. WILCOX. The increased wage, so far as I know, had no effect upon this exhibit, because this exhibit does not deal with expenses. It deals with capital, capital charges, traffic, and revenues.

The CHAIRMAN. Oh, yes.

Mr. WILCOX. I regret that I have not been in a position to prepare, and have not prepared, contrasts which would show the relative figures for other British cities and other American systems; but we can not do everything.

The CHAIRMAN. Are these statistics available in this country to show the cost of labor on the systems here and in England?

Mr. WILCOX. The comparative costs?

The CHAIRMAN. Yes; what they are here and there.

Mr. WILCOX. I think so. They can be had.

Commissioner GADSDEN. Were you discussing the pay of the trainmen in England?

Mr. WILCOX. Well, I said generally that my understanding was that the wages in England now were about at the level of where our trainmen's wages were before the war. I have not the detailed figures.

Commissioner GADSDEN. Do you happen to know that up to, I think, two years ago, or within a year—probably two years ago—the scale of motormen's and conductors' wages were about 6½ pence an hour—15 cents—maximum?

Mr. WILCOX. It probably was.

Commissioner GADSDEN. Fifteen cents per hour?

Mr. WILCOX. I do not know exactly.

Commissioner GADSDEN. I think we can get it for you and put it into the record.

Mr. WILCOX. I know the wages were lower, of course.

Commissioner GADSDEN. And I think they were only increased about a year ago; and the maximum pay for motormen and conductors, I think, was about 15 cents per hour. At that time our maximum pay was 48 cents—38, anyhow.

Mr. WILCOX. Well, I can not discuss the figures in detail, but the wage increases in Great Britain during the war up to the present time—they are increasing now over there—have about doubled the rates that were being paid when England went into the war.

Commissioner GADSDEN. But prior to the war the wage scale there was very low?

Mr. WILCOX. Of course, it was true in parts of this country that the wage scale was down low.

Commissioner GADSDEN. But nothing like that?

Mr. WILCOX. On lots of systems in this country before the war wages were down to 18 and 20 cents per hour.

Commissioner GADSDEN. Now, you are getting to something that I know something about. I live there.

Mr. WILCOX. Well, isn't that so?

Commissioner GADSDEN. Not as low as that.

Mr. WILCOX. Eighteen or twenty cents?

Commissioner GADSDEN. I do not think so.

Commissioner BEALL. Not for a good many years.

Commissioner GADSDEN. It used to be, a good many years ago; yes. We started off with about 12½ cents in the South, but we had gotten up to over 20.

Commissioner BEALL. I remember when it was 14; but that was years ago.

Commissioner GADSDEN. I started, in Charleston, paying 12½ cents in 1896; but that is a long time ago—a long time since we paid anything like that.

Mr. WILCOX. When did you get up to 20 cents?

Commissioner GADSDEN. Well, about 1906, 1907, or 1908, or something like that, I think.

Mr. WILCOX. What was it in 1914?

Commissioner GADSDEN. Twenty-five. I simply wanted to bring out that the wage scale over there was exceptionally low.

Commissioner BEALL. Does Glasgow give any Sunday service now?

Mr. WILCOX. I believe so.

Commissioner BEALL. I do not think they did originally, did they?

Mr. WILCOX. I can not tell you.

Commissioner BEALL. How about night service? I do not think they run any cars after a very early hour.

Mr. WILCOX. I can not say as to that.

Commissioner BEALL. You see what I mean. They do not give the kind of service that is given over here.

Mr. WILCOX. I made a few figures also in regard to Liverpool, which are not shown on that exhibit, taken from the report for the calendar year 1918. Liverpool, apparently, was very prosperous during the war period. I suppose the advent of the American and Canadian soldiers increased the traffic considerably. At any rate the report showed that the passengers carried had increased from about 130,000,000 before the beginning of the war to pretty nearly 200,000,000 last year. But the total number carried last year was 195,000,000, and the average fare per revenue passenger was 2.37 cents in our money. The percentage paying 5 cents or more was 2.2 per cent, although the minimum rate was not a halfpenny, but a penny; that is, 2 cents of our money. The number of passengers per car-mile was 15.98. The mileage was 124 miles—small, of course, compared with our American cities.

The net debt still outstanding, representing the total capitalization left, was \$18,657 per mile of track. And, as I stated this morning, the depreciation reserves, if they were applied to the payment of the debt, would have been sufficient to wipe that out.

Commissioner GADSDEN. Would you mind an interruption for a moment?

Mr. WILCOX. Not at all, sir.

Commissioner GADSDEN. Don't you think that is a fair illustration of the difference in the systems of municipal ownership and private ownership, that in a great city like Liverpool you have such a small mileage? Do you think people in the United States would stand for such a limited traction service?

Mr. WILCOX. I do not think that is characteristic of municipal ownership as compared with private ownership. Of course, it is true that an American city would not have extended its lines all over creation, covering the whole State, and away out into the suburbs, if the system had been municipally owned, because there would be no object in the city doing that.

Commissioner GADSDEN. They would not have gone to that extreme any more than they would have gone to that other extreme in England?

Mr. WILCOX. There are two extremes; yes.

San Francisco, which is building up a pretty important competing municipal system, is building lines into undeveloped territory, and I have no reason to suppose that an American city would restrict the mileage of the street railways unduly. I don't know. Of course we can not tell what would happen until we try it, but there is no doubt at all but what a great many American systems have been overbuilt; they have been overbuilt partly because of the influence, as I said this morning, of the pressure of real-estate men—sometimes people who were interested in the company, and sometimes others.

Commissioner GADSDEN. Frequently of the city councils?

Mr. WILCOX. Of the outlying districts, perhaps. I am speaking now of the far-out lines. On the city lines themselves, we, in this country, have had our systems built up in a great many cases as competing systems, with a duplication of lines that was absolutely unnecessary; and after the systems have been consolidated, then, of course, there has been opposition to tearing up the useless track; but the street railways have inherited that overbuilding, and it is no doubt a considerable burden upon them. Generally speaking, I think it is true—although I do not want to profess any great amount of knowledge of foreign city conditions, because I have not been there, but I think it is true—that, in general, the foreign cities are much more compact than our American cities, so that the same amount of mileage would not be required to give the same amount of service there as here.

I think no one can dispute that there is trouble now in the street-railway business. It seems to me that a commission appointed as this one has been to look into the problem and give advice which will carry weight with the States and with the municipalities, because the investigation is presumed to be impartial and not too much influenced by the immediate exigencies, so long as the commission itself can not, as I understand, take any remedial action, and can only recommend to the other authorities to take action—it seems to me for those reasons the commission ought to concern itself pretty carefully with not merely the temporary causes that have resulted in the condition which we are in now, but the causes that go back quite a good many years; and then, in the light of all those causes, to make recommendations which, if they are carried out, will mean not merely a temporary tiding over of to-day's emergency, but the setting of the street-railway machine back on the track, and do something, at least, toward a permanent, final solution of the street-railway problem from the point of view of public policy.

I have mentioned, in general, the matter of overcapitalization. That is a more or less sore subject. It is a thing that we would like to forget about, and I am sure the cities and those who take the public point of view, would be glad to let bygones be bygones, if it were possible to do so; but whenever we get to a rate case, whenever we get to the question of the cost-of-service franchise, whenever we get to a matter of purchase, whenever we get to any of the problems of regulation, or a solution of the street-railway problem, from the

point of view of public policy, we are confronted with these facts which have developed a good many years ago, but which have never been wiped out. They are there.

For example, I was called in by the city of Scranton, and upon investigation we found that the stock control of the Scranton Railway had been acquired from a syndicate of Philadelphia bankers about 1905, as I remember, by the American Railways Co., a holding company, which holds other properties, scattered around the country, and which itself is controlled by another holding company that, in turn, is controlled by still another holding company, the ramifications of which I did not investigate and do not understand. But the American Railways Co. stated, and we had no reason to doubt the fact, that 14 years ago they had paid \$2,000,000 in cash for the common stock at par. It was a good property, seemed to have fine earning capacity, and during the period of 13 years they had paid dividends amounting, as I remember, to something over \$1,600,000 on that common stock. In the meantime they transformed one million and a half of preferred stock into bonds in 1917, bonds bearing the same rate of interest as the rate of dividends upon the preferred stock, and in doing so increased the capitalization, as I remember, 12½ per cent, because the bonds were issued at a discount, to take up the preferred stock.

The total amount of bonds outstanding at the present time, last year, was \$7,395,000.

We went into the books; we could not get all of the details of some of the subsidiary companies, but we got a sufficient record of the book costs to make us fairly certain that the actual amount of money invested in that property was not much over \$5,250,000, without any reduction on account of depreciation and present condition.

The property was pretty badly run down, and if an ordinary, normal depreciation were applied to it on the basis of that cost, we figured that the present condition of the physical property on the basis of the original cost was about \$4,000,000. As I said, the bonds alone were \$7,395,000. On top of that was \$2,000,000 of stock which had been paying dividends. The company said that in 1917 they had paid dividends, and had neglected maintenance, and they had done it deliberately, because it was more important to keep the dividends paid, because the financiers would not find out that they were neglecting the maintenance, but they had to keep the dividends paid in order to keep a market for their securities.

Of course, the figures that I give you are merely the figures which I found, and the accountant that worked with me, being employed by the municipalities; there was, in that case, no physical valuation of the property. The Pennsylvania Commission, in rendering its decision, did not pass upon the value of the property, but merely said, "Probably this property is greatly overcapitalized."

The CHAIRMAN. Were the records kept in such shape that you could ascertain the actual money that was put into the property?

Mr. WILCOX. The records were not complete. That is, I mean to say, they were far from being ideal; but by the exercise of considerable ingenuity, we thought we had found substantially a correct figure as to the amount of money that was put in.

The manipulation in that case that took place in the nineties was such that it seems to me that any fair-minded man who had looked

into it would hang his head for shame that anything like that could be done in the case of a public utility, operating under a public franchise, and presumably organized for the purpose of rendering public service.

Now, we come to the Public Service Railway Co. of New Jersey. That is made up of 119 companies, going back to 1860; and again in the nineties, at the time of the electrification deals, the companies were consolidated, and the capitalization increased in the most outrageous ratios—in some cases as much as 20 to 1, as the result of a consolidation or deal or purchase of securities.

Then these companies were leased, and under the lease these inflated securities were made the basis of rental; so much—usually a comparatively low percentage—on the inflated securities for dividends on the stock, and so much for the bonds.

Our accountant going through that case found about \$73,000,000 of capitalization that was just created in these deals, the net amount created in these deals, taking off what little deflation or decreases were made in a few of them. A part of that, a large part of that, is covered by these big rentals.

Now, we come to the question of valuation for rate purposes; and if we could say, "We do not consider the capitalization," and kiss it good-by and think no more of it, we could proceed to make a valuation on the basis of original cost, or on the basis of reproduction cost, or the two figures combined, and have a basis to proceed with in a free and reasonable manner; but the company has \$5,200,000 of fixed charges, of which \$2,844,000 is represented by these rentals based upon this old capitalization.

These fixed charges, including the rentals, have to be paid, or else the system is broken up or the company goes into a receiver's hands; and when you come forward in a rate case, especially during the war emergency, they say: "Oh, you must at least keep us out of the receiver's hands—keep us from becoming bankrupt. We must at least pay this." Then they figure that the holding company which came in and got control in 1903, and actually poured in a good many million dollars into the Public Service Railway Co. and its stock, and although that may have sunk below the level in order to fill up the vacuum that represented the underlying stock to a considerable extent, still they say, "It was our money, and it was good money, and therefore we should be allowed to earn a return on this, after paying the fixed rentals."

Mr. WARREN. How much did you say the rentals were?

Mr. WILCOX. \$2,844,000.

Not only that, but we came to matter of valuation, and the company produced, in this case—I think I should speak fully and frankly about it, because it is a matter of great public importance, and I think you are entitled to my opinion and such information as I can give about it, and because I think it is typical, in a considerable measure, of the attitude of the street-railway companies at the present time, and is typical of an attitude which makes it very difficult to solve this problem—a valuation made by Dean Cooley, as of December 31, 1915. That valuation was made without applying to the public-service commission or the municipalities for co-operation or supervision. It was a private valuation. It was found

last year, when the courts had determined that the public-utilities law gave the commission the right to abrogate, to set aside the limiting features of the municipal contracts, that the company had been preparing for the time when this would happen, had secured this valuation, and was getting ready for a rate case.

Now, the valuation was based upon the reproduction cost theory. The original valuation did not include war prices. The valuation was made, as I say, as of December 31, 1915.

Commissioner GADSDEN. Did you say what the valuation was?

Mr. WILCOX. I did not. I will, though.

The valuation of the Public Service Railway property, reproduction cost new, as of that date, fixed by Dean Cooley, was \$79,000,000.

What do we find when we look into it? It is said that the inventory and valuation cost \$150,000. In Dean Cooley's report it shows that there were nearly 150 men employed on it at least part of the time, and they were the better part or the whole of the year in making the inventory covering the State of New Jersey.

The valuation, as reported by Mr. Cooley, and as presented to the commission, consists of a typewritten report of 150 pages, with the summaries.

The appraisal data, the valuation itself, is contained in appraisal volumes which fill two bookcases of four shelves each, some of the shelves having double tiers—about 130 volumes of appraisal data.

Upon investigation within the limited time we have this year—I say this merely to illustrate the methods—we found that land, for example, which consisted of 536 different parcels, scattered all over the State of New Jersey, had been appraised by local appraisers employed or designated by Dean Cooley, each one appraising independently and reporting the valuations, which were then incorporated in his appraisal, before the addition of the overheads. We found, when we got into the details, that there was nearly \$1,000,000 of property that was vacant, unused for street-railway purposes. There was no intimation made—nothing in the appraisal as reported to the commission and nothing in the evidence which the company put forward—to indicate that there was a foot of land which was vacant or unused. We found the appraisers, in valuing right of way in the two most important sections, had gotten the right-of-way value on a basis, as they figured it, of the market value of adjoining land, and then had multiplied it by $2\frac{1}{2}$ in order to get the value of land for railway purposes.

The CHAIRMAN. Simply following the old multiple theory?

Mr. WILCOX. A multiplier had been applied. Nothing was said about that. We knew nothing about that until we dug into these reports.

We found an old right of way that had been abandoned for so many years that if you go down there now and look for it you will find it covered with houses, and you can hardly trace it. In fact, we discovered that a part of it had been sold and was in private ownership now. This old right of way had been valued as real estate on the basis of the value of the adjoining land, and then to this had been applied the multiplier, and it was put in at two and a half times that figure—that is, without contesting the value of the land as such made by the different appraisers unchecked by anybody.

The CHAIRMAN. Can you recall the figure allowed for that abandoned right of way?

Mr. WILCOX. The base cost was \$103,800—I mean the cost based upon the value of the adjoining land was \$103,800, and it was boosted to \$259,500 by the multiplier.

We found a piece of property in Camden, a small piece of real estate, that had two residence blocks on it. They were used evidently for residences. I do not know how the company came by them or what the company's use of them was. Perhaps some of their employees have lived in them; but at any rate that property was appraised at a certain figure as land, and those two residence blocks were appraised—inventoried—filling 10 large typewritten pages, about double the ordinary letter-size page, giving in infinite detail every item that went into the construction of those residence blocks, and the fence around the property, and valuing that; and when we added the value of the land as appraised and the value of these residence blocks as appraised, their present depreciated value, and added the overheads, we got \$18,000; and we discovered from the company's report that it had since sold the property for \$7,000.

We found, when we looked into the matter of depreciation, that the per cent condition given to the track was such that there was only 13 miles out of 790 miles that was in less than 20 per cent condition, meaning that there was only 13 miles that would need to be replaced within five years, while the company was testifying at the same time that it must rebuild at least 23 miles of its track every year; and we found that, on top of the land value with the $2\frac{1}{2}$ multiplier added in the case of right of way, overhead percentages were added— $2\frac{1}{2}$ per cent for law expenses, 11 per cent for interest during construction, 2 per cent for taxes during construction, and that was added to the base—and then $12\frac{1}{2}$ per cent was added to that for conception of the project and the preliminary expenses and the promoter's remuneration, and the cost of money, figuring out practically 30 per cent additional to the cost of land after the multipliers were on, directly contrary to the ruling of the United States Supreme Court in the Minnesota rate cases, both the multiplier and these overheads. And that appraisal was made two or three years after that decision was rendered.

We found that, in addition to the base cost on way and structures, the percentages piled up amounted to 46 per cent, and on equipment to 35. We found, in addition to that, when we dug into the unit prices, that at almost every turn a percentage had been added for omissions or waste or specific contingencies for this, that, and the other thing, although it was stated that the unit prices were based upon the company's actual costs during the five-year period ending 1915.

For example, tracks and roadway labor: It was found that 20 per cent was added for track and roadway labor to the figures which were taken from the company's books as charged to capital account, on the theory that there were certain overhead expenses that the company had not charged to capital account, but that should be charged to capital account.

We found, from a study of the company's books, for the period of the last nine years, or since December 31, 1910—since it has been

subject to regulation—that the actual overhead expenses which the company has paid and has charged to capital account, was 3.96 per cent, as compared with an average of about 42 per cent allowed by Dean Cooley on the entire property described in this appraisal.

Then when the witnesses were produced this year, they said, “Why, this appraisal was made without taking into consideration war prices; therefore, now it should be jacked up, the property should be worth more now because of the increase in prices since December 31, 1915.” On the theory that war prices should be used, the amount that the appraisal was jacked up was moderate, about 15 per cent on the unit prices of materials, labor, and land.

Commissioner SWEET. Over those used in 1915?

Mr. WILCOX. Yes. But after that was done they said, “Now this is the physical value, pure and simple. Now there is a development cost.” And what does the development cost consist of? Here we get back to these rentals. The company produced figures showing that there was a development cost of \$16,000,000 since 1903, when the present company came into control. And Dean Cooley testified that there must have been a larger cost earlier—he would expect a higher rate of development cost during the early period, but to be conservative, he would call it 30 per cent on the physical value. And so to this \$16,000,000, designated as known development cost, he added enough to make up the difference as “unknown” or unascertained development cost. In that way the claimed value of the property was brought up to \$130,000,000.

Now what did this \$16,000,000 of development cost contain, or what was it made up of? It was made up in part of advances made by the holding company to the Public Service Railway Co., which had not been paid back, and in part it was made up of so-called operating losses, designated as such on the company's exhibits for the four or five years from 1903 to 1907. When we went back to find out what the operating losses represented, they were not operating losses, but they were the deficiencies in earnings below a sufficient amount to pay operating expenses plus these rentals and fixed charges which had been assumed voluntarily in the acquisition of the properties, and those operating losses amounted to \$2,800,000 in those few years, and those had been cumulated at 8 per cent per annum compounded until in the figure given us just under \$8,000,000 of the \$16,000,000 represented those operating losses of that five-year period increased by compound interest at 8 per cent until now. We figured out that if at the same rate, assuming no further losses, but just allowing that \$2,800,000 of operating losses to go on, in 50 years from now it would amount to \$370,000,000 to be added to the value of the property and made a basis for rates.

Well, I speak of these things which illustrate what I said this morning with respect to the financial policy which the companies have pursued, many of them, and also because they illustrate a thing that I want to speak about now.

Everybody, I think, that has studied the problem recognizes that the fundamental and essential fact to be ascertained and determined is the recognized capital value of the property that is devoted to public service. You can not get anywhere in regulation without establishing that. You can not have any service at cost without

that. You can not go to public ownership without that. You can not do anything that is fundamental in regulation or in the development of policy without fixing that figure.

The CHAIRMAN. Before you discuss that question further, may I ask you just one question?

Mr. WILCOX. Yes.

The CHAIRMAN. From your experience and study can you state whether the principles of valuation used by Dean Cooley are fairly representative of those generally used by the street-railway industry?

Mr. WILCOX. I think they are. I think they are. I should say in that connection that Dean Cooley very stoutly maintained that the property was worth, as I have stated this morning, generally—that the property should not be depreciated at all for rate purposes—that it was worth 100 per cent in service, and that it should be counted at 100 per cent. He had established a per cent condition merely to show the results of an actual examination. And in that connection, even in the depreciation which he established, which he said should be disregarded absolutely in a rate case, he did not depreciate track and roadway labor at all. The labor that goes into the laying of the track and which has to be repeated when rails are put down again was not depreciated. And grading, which on a city track—

The CHAIRMAN. The dean was before our commission and outlined at some length his theory of valuation.

Mr. WILCOX. Yes. He did not depreciate the grading at all. He did not depreciate the ballast at all. And we found cars—for example, 100 or more cars that had been retired—withdrawn from service and retired within three or three and a half years within the date of his appraisal, and they were appraised at from 50 to 60 per cent condition, which would indicate that they had a 12 to 15 years' life yet. He used the inspection method only, so far as it was possible to do so. All the property that he could see he went and measured the wear and looked at it and said it was in such and such a per cent condition. And obsolescence and inadequacy and all those elements of depreciation which are not shown by measurement of wear were disregarded entirely in his appraisal.

Now, as I was going to say—I speak of this for two reasons. What I have said with reference to the company's history and also with reference to the difficulty of getting together, of sitting down around a table and being reasonable and getting together and fixing a valuation and agreeing upon something. The companies are largely, because of their overcapitalization, in the control now of men who represent the marginal interests, the interests that with a valuation, a conservative valuation, would disappear. And they can not agree on a conservative valuation; they can not agree on a valuation that is from the public point of view, in my judgment, a reasonable and fair one, because if they did they would wipe themselves out; they would not be there any more. It would be somebody else that would be talking. And for the companies to do what they are doing—come forward at a time like this and say that the very conditions which have made it impracticable, almost impossible, to earn a fair return upon a conservative investment, that those very conditions which are putting the industry on the rocks make

their property worth twice as much or 50 per cent more than it was before, and, as a result, demand that they shall be permitted to earn a fair return upon this increased value—it seems to me that that attitude makes it almost impossible to reach an amicable agreement or settlement on the basis of service-at-cost or any other basis which requires the consent and the agreement of the two parties.

Now, this problem from a financial standpoint would be comparatively simple if it were merely a question of raising rates; if it were merely a question of saying, "All right; everything else has gone up; let us double the street-car fare." But it is not that. The companies themselves recognize in large measure that that will not solve the problem. You can lead a horse to water but you can not make him drink. And there is no way that I know of by which you can round up the people who do not have to ride and make them ride in order to help support the street-railway company. And the result is that any policy which—through increase of rates based upon a large valuation or any of the elements of cost that enter into the cost of service—adopts a system that drives people away, that decreases the traffic, means ruin, in the long run. They get a little more net revenue or gross revenue for the time being, but it is undermining the street railway as a public utility, and, so far as I can see, there is no way out in that direction.

The whole situation, of course, is well illustrated by the experience of Boston. I did not know how ridiculous the situation was until the other day, when I sent for and received the latest reports, which included a statement issued by the trustees in connection with the establishment of the 10-cent fare which was to be effective July 10. Now, this printed statement gives the results up to the end of May. But along with it came the monthly reports, including the June report. Now, going back—and I think you have had the facts presented here—the fact that the Boston transit was taken over by trustees on the 1st of July, a year ago, established the 7-cent fare on the 1st of August, and an 8-cent fare on the 1st of December, and a 10-cent fare on the 10th of July this year—the cost of service in January, under the Boston Elevated act, was \$219,000 more than the revenue. In February—

The CHAIRMAN. What month?

Mr. WILCOX. The month of January. In February it was \$285,000 more. In March it was \$224,000 more. In April it was \$316,000 more. They put this explanatory note on it: "One of the reasons for the larger deficit for the month of April was the excess of track and car-repair work above a fair monthly average which has necessarily been performed."

In the month of May it was \$324,000, and they added the note: "One of the reasons for the larger deficit is the excess of track and car-repair work above a fair monthly average."

Now, for the month of June, which was not included in the monthly reports, the loss was \$535,000, and they put this note in: "One of the reasons for the larger deficit for the month of June was the excess of track and car-repair work above a fair monthly average which has necessarily been performed."

And prior to the issuance of this statement they had determined upon putting in a 10-cent fare, and when this statement came out

it showed that the cost of service in June was 10.065 cents per passenger. Put the 10-cent fare in and a considerable per cent of the passengers will not ride any more, and the cost of service must now be up to, perhaps, 12 cents per passenger; and I can not see how they are coming out in that way. Under their law they are supposed, although the State has to make up this deficit of about \$5,000,000, which had accumulated in this last year, through taxes—the trustees are supposed to put in a still higher fare to enable them to make up out of the rates that deficit and pay it back to the State. It is the theory of the law that the fare payers shall pay the full cost of service and that deficits made up out of taxes shall be only temporarily advanced.

Commissioner GADSDEN. And yet, Mr. Wilcox, that is a case where there is practically no water?

Mr. WILCOX. In that case the stock, as I understand it, substantially represents investment. Of course, nothing was taken off for depreciation; but aside from that it substantially represents investment.

Mr. WARREN. It represents considerably more; does it not? Some of the stock was issued as high as 155, I think, and all of it at par, or more.

Mr. WILCOX. Well, there were some additions. I can not tell you the details of that, although that would be only a small percentage of the total.

Now, of course, Boston has the subways. In Boston the subways are built by the city and rented at a figure which will pay the interest cost and the sinking fund cost, as I understand it, on the city's investment, and if the rentals are continued, at the end of a certain period of years, when the bonds are due, they will be paid and the city will not be out anything. And the cost of elevated roads and of subways is, of course, very heavy, and it bears very heavily upon the cost of service, and especially at the present time when everything else is so heavy.

Now, I have referred, going back to reasons, to overcapitalization, which is general, although not universal—the overconsolidation of systems, which reached out and built up great networks going all over a State or a section of a State, for the purpose, I think, primarily of manipulation of securities at the time, and conditions developed where the city lines have to bear the burden of a lot of outside nonpaying lines. In some cases that has been beneficial to the community. I think in many cases it has been much overdone, even from the point of view of the benefit to the merchants and others who profit from the unified system of street-railway service.

Take New Jersey again, for example. Here we have Camden in the southern part of the State, with a line running up to Trenton combined in operation with a system spreading all over northern New Jersey with no connecting link between them except a line which is owned and operated by the affiliated company. There is not any reason in the world that I can see why the street-railway business should have extended to the extent that it has in the consolidation of independent and separate systems serving different communities. Every consolidation practically, every union, every lease, has meant an increase of capitalization or of fixed charges increasing the

burdens which can not be gotten rid of except by a disruption of the system, and of course a disruption of the system is much more painful after the habits of travel have been established, and all that, than the keeping of the systems apart would have been.

Of course, one of the big things that has entered into the present trouble has been the franchise contracts with the inflexible fare. It has entered into the present trouble in two ways, and I do not know but what one is as important as the other. It was the basis of this overcapitalization. The companies in many cases had perpetual franchises, the right to charge 5 cents forever—and the public thought and they thought that there was great profit in it in many cases—and they proceeded to capitalize the hopes of the future. They thought the cities could not reduce the fares, the State could not reduce the fares, and they were secure in that way. The result was that the fixed contract with the fixed fare was regarded as a great asset, as something of enormous value, capitalized and made the basis of fixed charges; and now they are in trouble for it. Now, when it comes to a time when even with conservative capitalization it is difficult to make both ends meet on a fare as low as 5 cents in most communities, the contract is there; it is something which is inflexible, and except for the interference of the State commissions they practically have been tied down to a fare which was established at a different period and under different systems of cost, so that the effect has been doubled.

Now, I do not know—working through all of these causes has been the development of the hatred of the community toward these street-railway companies, and that hatred is based not, I think, upon any essential unfairness on the part of the American public or any essential unwillingness on the part of the American public to pay for necessary service what it costs, but it has been based upon these manipulations and the feeling that here is a private interest that has gotten a grip on our streets and we can not shake it loose, and in the old times it was making lots of money; a good many men were taking great fortunes out and leaving the industry in more or less of a crippled condition; and the public hostility was developed, and it continues, and I do not see any possible way of overcoming it unless the business is reorganized and put upon a sound financial basis, and these old obligations that were in part illegitimate at the time they were incurred are wiped out and the whole system is put upon a sound and proper basis.

Now, I do not know whether that will do it, because to my mind after studying this problem for a good many years it seems to me that transportation service in cities has become so much a matter of public necessity and public importance and is a public function in so vital a way that the very idea of private companies performing this public function for profit tends to be corrupting and disturbing of the political atmosphere and political relation. And I am not at all certain that, even under the best management or on the best basis, we could figure out a continuation of private ownership and private operation of the street-railway business that would be able to secure and hold for any considerable period of time the good will and co-operation which certainly now are necessary if the business is going to succeed from a financial standpoint without being wrecked as a

public utility by a decrease of service so that only a comparatively few people ride.

Another thing that has caused the trouble has been the restriction of municipal powers, largely through the influence and power of the companies who wished to retain their hold upon this great industry with its immense earning capacity, enormous investment, and its great future, as it appeared. Legislation—liberal legislation—granting municipal powers which would have enabled the cities to exercise some initiative and to grapple with the problem in an intelligent fashion has been withheld, with the result that about all the cities could do was to scold, stir up trouble, and scold; and that has tended not only to prevent the remedial action that might have been taken but it has tended to further develop this ill feeling and misunderstanding which now prevails. As the result of the 5-cent fare and the profits that the people thought the companies were making and that the companies thought they would make when they overcapitalized, the people got after them on special taxation and they said, "They are using our streets, and they have got their franchises, and in some cases they bought them and paid the aldermen instead of the city; and we can not get rid of them, and they are making lots of profit running on our streets and we ought to get some of it back," and so all sorts of burdens were placed on them. I do not believe that a public utility of this nature ought to be subject to special taxation. I do not think that is in the nature of the business that we should try to "soak" the car riders for the support of the government, the other functions of government. I think that they are entitled, from social and political reasons, to service at as low a cost as it can be rendered to them. But the mischief has been done, and it is very difficult to undo it, because this system of taxes has been woven into the State laws and into the municipal charters and ordinances and into the contracts, and while some can be remitted without much trouble, with respect to others it will tend to upset the whole taxation scheme of the State.

Commissioner MEEKER. As a matter of fact, did the tax fall in its last incidence upon the car riders when it was imposed?

Mr. WILCOX. Well, originally not, because they said, "Give us a 5-cent fare and let us operate and we will give you so much service and agree to give the service for a given time or forever." And under those circumstance the taxes did not fall upon the consumer, upon the car rider, excepting in cases where the taxes were so heavy as to make the companies unable or unwilling to render the service which they otherwise would have rendered.

Commissioner SWEET. What money could these special taxes be paid out of except the nickels that came in?

Mr. WILCOX. Well, they could not be. That is all the money the companies could get.

Commissioner SWEET. But at that time the car riders were paying more than they ought to pay?

Mr. WILCOX. Yes, that is true; but they had contracted to do so. The contracts were there, and there was a 5-cent fare for 20 years. "Now, you are making lots of money and we will tax you to get something back," the people said.

Commissioner SWEET. But every dollar for tax or anything else came from the nickels of the riders?

Mr. WILCOX. Yes. Now, the street-railway taxes have become a very important element in the sources of revenue of cities, and it is difficult for the cities which are hard put to it to find the money to carry on the government, it is hard for them to surrender these taxes; and as I say, in some cases it requires an entire revision of the State scheme of taxation, and in some cases the cities could not voluntarily do it if they wished to. Some can be remitted. But the public, again, is not willing, until the street-railway business is on a sound basis and that which they recognize to be a sound basis, to give up taxes, and especially it is not willing to go further and give special exemptions which would favor the street-railway business as compared with other businesses. I think that rather than increase rates above a minimum that tends to develop the city properly and furnish cheap and sufficient transportation, as a matter of policy it would be best to give up all taxation, if we could have an arrangement by which we are sure that the business is being run as a public business and that the people who give up the taxes are getting the benefit of giving them up. That, of course, is one of the big problems that you have before you, and that is being considered in various parts of the country.

Now, another thing that has made the problem difficult—it has contributed somewhat to its solution, but on the other hand it has introduced considerable difficulties—is the establishment of the State commissions, with power to abrogate the local contracts. Here are two movements which have been going along side by side. Certain of the cities, after long years of dispute with the street-railway companies, were getting to the point of adopting modern franchises, modern contracts controlling service and rates, and almost simultaneously the State commission idea came into effect, and it has taken several years for the full force of the movement to be developed and shown up. But now we find that these two movements run counter to each other. The city that wants to go to municipal ownership ultimately and wants a trolley service, that wants trolley extensions, that wants a proper local transportation as part of the city plan—as something in which the local people have a primary interest, something that is really ancillary to the municipal government—and that proceeds to try to get these things through a franchise contract with a private company, finds that after the contract is all signed, sealed, and delivered and has been in force a few years and is presumably a valid contract—some morning the company goes to the State commission and it says, “We can not live under this contract. We want all the things in this contract which are to our advantage—they suit us—but the things that are not to our advantage we want set aside.” And the State commission, having no interest in who owns the property, having no interest in the matter of the ultimate policy as to ownership, viewing the matter entirely from the point of view of the earnings upon the investment and the general character of service, proceeds to abrogate and set aside these contracts. The result is that now, when a city wants to settle, when you begin to talk about making a settlement with your company—a cost of service or any other kind of settlement—you do not know whether the contract which you work out through years of elaborate negotiations is more than a scrap

of paper, because of the fact of this force representing the power of the State which assumes to surrender on behalf of the city the advantages which the city secures through negotiations. Now—

Commissioner GADSDEN. I do not want to interrupt your train of thought, but just what have you in mind as to the advantages of the city which are surrendered and the advantages which the company keeps? I do not quite follow you there. What does the company keep under State regulation which it ought not to keep?

Mr. WILCOX. Well, I do not say it is something they ought not to keep, but a bargain that is made—

Commissioner GADSDEN. I mean that was in the contract. I do not quite follow you there.

Mr. WILCOX. Take, for example, the contracts we discussed before the chamber of commerce committee, the Chicago contracts. The company agreed to furnish transportation for 5 cents for a period of 20 years and agreed to divide profits with the city on that basis. It agreed to sell to the city at a given figure at any time it wanted to come in. It agreed on certain standards of service. Now, after a certain period the company is dissatisfied, because of the increases in expenses, with the rate of fare. It goes before the commission and the commission assumes jurisdiction and says, "Under the public-utilities law we can set aside that part of the contract; we can grant 6 or 7-cent fares or whatever we think is necessary." But in this particular case, at the time of the first hearing and decision they did not do so, although they might have done so; and I understand hearings are now going on with the idea that they may do so. But they could not set aside, and did not attempt to set aside, the obligation of the city to pay the fixed value in case it wanted to purchase, although they found that that fixed value was grossly excessive with respect to the present value of the property. The city, so far as its plan for ultimate municipal ownership is concerned, is stuck by the contract. There is not any way of getting out of it unless, outside the contract, it is possible the city might have power through condemnation. But so far as the contract was concerned the thing that was the most advantageous to the city remains binding upon the city—

Commissioner MEEKER. The most disadvantageous to the city?

Mr. WILCOX. The most disadvantageous to the city—remains binding on the city while the other is subject to relief of the company by the public-service commission.

Now, in saying this I do not mean to say that I am opposed to State regulation, but I do think that we have set up ignorantly, without trying to coordinate them, two sets of forces trying to solve this problem in two different ways, and they are conflicting and we are getting nowhere. And I do think that the solution of the problem does not lie in exclusive State regulation, because I do believe that every municipality has a vital interest, civic and municipal interest, in the development and control of its street-railway system. And I have thought for a good many years that instead of this seesaw between State regulation and local regulation somebody ought to work out a system of cooperation between State and local authorities, carefully delimiting the functions of each but at the same time providing in the setting up of the machinery for cooperation rather than going along the way we are now with the municipalities trying to

claim jurisdiction and the State commissions taking it away from them, and one party having all the power and the other helpless or vice versa.

Commissioner MEEKER. You think a cooperative system could be worked out—

Mr. WILCOX. I believe it could.

Commissioner MEEKER. Which would be superior to a single control?

Mr. WILCOX. Between the State and local authorities, I do believe so. There are certain functions unquestionably—there are certain matters relating to street-railway operation that must be controlled through State agencies and—

The CHAIRMAN. Well, upon that point, Doctor, will you enumerate the particular things which the city should control and those which the State should control?

Mr. WILCOX. Of course, it is not possible to make such an enumeration that would be applicable to all conditions everywhere; because in a State like Rhode Island or a State like New Jersey and in certain sections of other Eastern States where the municipalities do not represent the normal urban community, but are merely arbitrary lines, and where a system which ought to be operated as a unified system overlaps and runs into several municipalities, we would have functions which would have to be taken care of by the State or a larger district than the municipality which, in other cities, where the municipal boundaries pretty well cover the urban district, would be taken care of by the municipality. But with that qualification I would say this, undoubtedly the State commission should have control of capitalization, of the issuance of securities—

Commissioner MEEKER. If it will not interrupt you, I would like to have you state why you think it is necessary to control the issuance of securities if there is a proper control of the capital value of investment. What difference does it make whether they issue \$200,000,000 of stock, if the physical value or the value of the plant is fixed?

Mr. WILCOX. Well, perhaps I answered with respect to securities too easily. I will say that unquestionably such control of securities as is deemed necessary in the public interest should be vested in a State commission, without going into the pros and cons as to whether or not we can take the lid off the capitalization, if we have a fixed capital value. From the point of view of the city that establishes the cost of service, that is interested merely in the value of the property and what it costs, I would say it is no concern of the city what the capitalization is, provided that in the issuance of bonds the interests of the city are not compromised in connection with the acquisition of the property and the control of the property. The next thing which the State should control is obviously, I think, the whole matter of accounting and forms of bookkeeping and reports.

The State must essentially and must necessarily control and have full control over lines which are not subject to municipal control; that is intercity lines and lines where the through interest is predominant over the local interest. I do not think it is proper that a town board, for example, should be able to prevent the construction of an interurban line by trying to impose some outrageous franchise

provision before it will let it through, if it is to the interest of the State as a whole or of the section of the State, as determined by the State commission, that such a line should be built.

The State must also have full control of intercity operations, or suburban operations. If a municipality owns the system and operates outside of its limits, I think the conditions of operation outside of the limits should be subject to control by the State commission the same as if a private company were operating. And in these times there are many things in connection with the relations between municipalities and the corporations that would have to be ironed out through a State commission: power supply and various things.

Now, when it comes to matters of service and rates, I believe that fundamentally the urban community—the community that constitutes a community for transportation service, through its organized agency—should have control of that service and determine how much service it wants and pay for what it gets in one form or another. I think the municipality should have control of the policy of rates, as to whether the rates should be the zone fare or the flat fare, whether they should be sufficient to meet the entire cost of service or whether they should be supplemented by subsidies from taxation or by special land taxes or other means.

I think the whole policy of what the service shall be and how the cost of that service shall be paid, admitting frankly that the whole cost of service must, of course, be paid by the public in one form or another—I think that those things should be matters of municipal policy wherever the municipalities are organized in such a way that they can exercise the function.

The CHAIRMAN. Should the State commission have appellate jurisdiction over those rates?

Mr. WILCOX. In what I stated the question of the amount of money to be raised was not involved, except to the extent that the locality determines the amount of service, and that is reflected in the cost.

I assumed that whatever the cost of service was, for the service that the municipality or the group of municipalities required, it would have to be paid. I think that the municipality or group of municipalities ought to have the privilege of determining how that shall be paid.

Now, there comes this question of valuation and of the supervision of operating expenses.

The CHAIRMAN. Before you reach that question, did you completely answer the question that I asked?

Mr. WILCOX. This is a part of that answer.

It is a question as to who should be responsible for the valuations. I do not believe that it is advisable for municipalities or groups of municipalities in general to attempt to agree with public utility companies upon the value of the property. I do not think it is possible, ordinarily, to conduct negotiations on a basis where a fair result will be reached.

I think that the valuation of the property should be determined by an expert agency that is impartial, and if the State commissions are properly protected from undue influence on either side it seems to me that they are the proper agency for determining valuations. I think, however, that whenever a question of valuation in which a

city is interested is up before a State commission the city or group of cities should have full authority to examine the property, to have access to the company's books, and to make an appraisal, just the same as the commission, so that, if they wish to put in an appraisal, if they wish to go to the expense of putting in an appraisal contesting the valuation that the company submits to the commission they shall have the privilege to do so. It seems to me, however, that the function of making the valuation is a function that can best be performed by a State utilities commission.

I think that the State commission should have general jurisdiction in the matter of safety.

I think that the State commission might properly be, in many cases, the board of arbitration—could act as the board of arbitration in disputes between the municipality and the company with respect to the interpretation and application of the contracts that exist between them. For example, I think the municipality ought to have the power to determine what extensions shall be built; but an arbitrary power to demand extensions at any time anywhere is such that it might be used to ruin—bankrupt the company. Presumably under the service-at-cost plan, if it is fixed so that it will actually work out, it would merely go into the cost of service, and it would work out all right. But as to things that are vital, that vitally affect the company's rights, I think they ought to have a right to appeal from the city's decision to the State commission as a board of arbitration, or the city should have the right to appeal.

Commissioner MEEKER. That would include rates; would it?

Mr. WILCOX. No; I did not say that would include rates, although perhaps this last would infer it.

The thing that would be subject to appeal would be the determination of the cost of service. After the cost of service is determined then I think the municipality or the group of municipalities, where they are organized to take control of it, should, as a part of municipal policy, be permitted to raise the rates, or raise the revenue in any way they please.

Mr. WARREN. By the cost of service, do you mean from time to time, or the original basis—the valuation?

Mr. WILCOX. I mean from time to time.

Mr. WARREN. That ought to be a State commission matter?

Mr. WILCOX. I think that the rules to establish the cost of service ought to be made in an agreement, in a contract, and it ought not to be a contract which the State commission can set aside without the consent of the municipality.

Now, when it comes to interpreting and applying the terms of that contract, I think it very well for the State commission, as an impartial body, to be the party to determine how that shall be applied.

In the Cleveland contract, in each case they establish a board of arbitration, and if the State commission were efficient and as it ought to be, with the facilities it would have, it could very well serve as a board of arbitration for those purposes.

After all I have said about the more or less remote causes of the present trouble of the street railways—I mean remote in time, origin—I should not omit the causes upon which great stress is being laid and which are extremely important—namely, the new competi-

tion of motor vehicles, which has become an extremely important factor, especially in the last six or eight years, and the war prices and war wages, which are the saw log that are breaking the camel's back.

It seems to me that the outlines of the problem bring out four fundamental questions that ought to be determined as a matter of permanent policy.

The first is as to the character of investment in street railways. Shall it be speculative or nonspeculative? That means: Shall it be a secured investment or an investment in which the investors take risks?

Second, shall the business be conducted primarily for profit or shall it be conducted primarily for service? I do not mean, in asking that question, that the two can be entirely separated. I mean that the question of policy to be determined is as to whether or not at any given time, in any given crisis, the motive of service or the motive of profit shall be the predominating one, and determine the policy.

Third, shall continued service be guaranteed, and shall industrial disputes in the transit business be settled without strikes?

Fourth, shall the business be carried on through public agencies or through private agencies?

In my opinion, the investment should be nonspeculative. In order to make it nonspeculative, certain things are necessary: First, the amount of the investment must be determined, fixed; second, the rate of return to be allowed upon the investment must be fixed.

Commissioner GADSDEN. May I ask you right there: Fixed from time to time, or fixed once for all? Because that is a very interesting question.

Mr. WILCOX. It must be fixed once, and then, if necessary, fixed from time to time.

Commissioner GADSDEN. As the cost increases or decreases?

Mr. WILCOX. Yes. I will discuss that a little further, because that is an important issue.

Some scheme must be provided for flexibility in revenues to enable the investment to receive its return at all times. Means must be provided to secure the permanent integrity of the investment itself. That requires the physical unkeep of the property, so that the basis of the investment shall not disappear. It requires the protection of the investment from ruinous competition. It requires that the investment shall have the right to continue in service until it is taken care of, until the investors are paid. As a matter of additional safety, it involves, I think, the desirability of amortization of the capital account, at least in part, so as to keep the capital account at all times well within the present physical value of the visible property.

Now, returning to the question which Mr. Gadsden raised with respect to the rate of return: The rate of return will, of course, be influenced by the security of the investment. If the investment itself is made secure in all the ways I suggested, and if the earning of the return upon it, fixed from year to year, is made certain, then the rate of the return will be relatively low. In other words, we will get the benefit of cheap capital.

I assume that the question Mr. Gadsden raised was with respect to whether or not the rate of return upon the investment in the prop-

erty shall be changed from time to time with the change in the current rate of interest, the scarcity of capital. I do not think that the investment which has been fixed need have the rate of return upon that investment changed. Of course, it will be necessary that the rate of return upon additional investment fluctuate more or less if financial conditions fluctuate. That is taken care of in a situation like Cleveland, where the return upon the stock is a fixed amount and the return that is allowed for interest upon the money secured through bond issues is the actual cost. I think under the Cleveland franchise it is limited to a maximum of 6 per cent, but that would not be necessary.

Commissioner BEALL. They are asking for 7 now.

Commissioner GADSDEN. If I may interpose for a moment: In Cleveland the difficulty, as I understand, now is that they can not sell their 6 per cent stock at par, and that discount the company loses, and they are asking an increase. How are we going to meet that situation as years go by?

Mr. WILCOX. In a situation like Cleveland, where a very large proportion of the investment—the majority, much more than half of the investment—is represented by 6 per cent stock, you could certainly during a period of extraordinary cost of money get the additional funds you need through bonds and pay what was necessary. I do not see any good reason why the rate of return upon the investment should fluctuate—I mean the investment that stays there.

Commissioner BEALL. Would you see any objection to putting in any necessary discount as a part of the cost of the property and being allowed to earn on that the 6 or 7 or 8 per cent, whatever was allowed?

Mr. WILCOX. Bond discount or stock discount?

Commissioner BEALL. Yes. That is part of the cost, just as much as steel rails.

Mr. WILCOX. I would object to its being put in as a part of the permanent capitalization. I would not object to the plan which is followed by the public-service commission in amortizing.

Commissioner BEALL. That is the same thing in a different way.

Mr. WILCOX. Only you get it out of the permanent capital. I believe in being absolutely conservative with reference to permanent capital.

Answering the additional questions as to what I think: I think the business should be conducted for service and not profit; that is, that the service should be the predominant motive, the controlling motive, at all times; and the reason for that is that I believe the service is an essential public service, so vital to our municipalities that we can not afford to permit the public policy with respect to transportation to be determined by the exigencies of profit.

Transportation facilities, in the first place, should be developed and operated as a unit for every urban community. It is a part of the city plan.

Extensions should be built, I think, as determined by public authority. That is a part of the city plan. Rates should be fixed with an eye to their effect on urban development.

Take New York, for example. Here we have the 5-cent fare, under the subway contracts, which has been subsidized by the city,

practically, to the extent of two or three hundred million dollars. The city, whether rightly or mistakenly, had the idea that the enormous congestion in Manhattan could be in part relieved by building a transit system out in every direction and providing a low uniform fare for everybody, taking people out into the suburbs. If the city, as a part of its plan of development, determines that that is a good policy to follow, that the flat uniform fare and the low fare has a beneficial effect upon city development, those considerations should, I think, control in fixing the fare. Of course, everything is subject to human limitations; and when I say that service should control and that profit should stand aside I mean that service should control, being modified by the necessity, where the necessity exists, of making the service pay; but that the city should consider that making up deficits out of taxes, if necessary, is more important than making the business self-sustaining if the rates that would make it self-sustaining have a deleterious effect upon municipal development.

Mr. WARREN. May I ask you, if it will not interfere with your line of thought, there: When you speak of the urban community—take a place like New York—do you include the Jersey side, the suburbs in Jersey? Or, take a place like Boston: When you speak of the urban territory, do you include the places served by the elevated?

Mr. WILCOX. In New York, I would not take in Jersey. Jersey is separated by a great river and by State lines which are more or less arbitrary, and as long as it is so separated we will have to do the best we can and not include it. I should say that with respect to Boston, the metropolitan district should be the unit. You have established metropolitan districts for other purposes.

Mr. WARREN. In other words, you would ignore the technical municipal lines if the contiguous territory were really a part of the city in its interest?

Mr. WILCOX. I would ignore those lines if the suburban or extra-municipal development is sufficiently important so that it could not be taken care of incidentally.

Mr. WARREN. Yes.

Commissioner SWEET. But you would not have one unit of organization in that case, would you, to carry out your policies?

Mr. WILCOX. British cities have this policy sometimes: A municipal system will be built within the municipal limits, and then the municipality will acquire the right from the adjoining municipality to lay down tracks and operate them, or the adjoining municipality will supply the tracks and, through an agreement, the main municipality will operate the cars over them. I think that plan is entirely feasible where we have a city like Chicago or like Detroit, say, where the principal part of the urban community comes within the municipal lines and where the municipal boundaries are being extended from time to time, so that anything that is outside is outside only temporarily.

When it comes to a situation like Boston or Newark, the probability is that we would have to have, or ought to have, a special district, a street-railway district, to handle that problem, which would include the metropolitan area.

If the maximum service, if it is not wasteful, can not be made self-sustaining it should be subsidized. On the other hand, excess earnings should be put back into the business. Special taxes should be removed when you have this scheme in operation.

As to continuity of service, I believe that continuity of service should be assured, and that the street-railway strike should be made unnecessary and outlawed.

I think that the employees should be encouraged to organize for their mutual benefit, and as a means for securing cooperation in discipline and management, and to provide an agency for presenting their grievances in an authoritative way, and securing full publicity and prompt attention to them.

I believe that even some of our Governmental departments might be more or less democratized with advantage.

Commissioner MEEKER. You mean by that that they should give the employees more of a voice in the management of the departments?

Mr. WILCOX. I was deputy commissioner of water supply, gas, and electricity in New York for three or four years; and my experience there made me think that public utilities, publicly operated, would get along a great deal better if the right of the employees to participate in the formulation and determination of policy in a reasonable way, and in the presentation of their grievances and the settlement of disciplinary questions were recognized and provided for, and if machinery were established and recognized for that purpose, so that the individual employee would not be isolated, would not be so helpless in a great machine, and so that there would not be so much of a discount upon the initiative of the individual, with the resultant discouragement and development of a tendency to sort of lie down on the job, and be sore on the city or on the Government, and get out when you can, and slam the Administration, and all that sort of thing.

Commissioner MEEKER. You spoke of strikes being outlawed. Will you extend your remarks on that?

Mr. WILCOX. I was going ahead a little further on that. I think responsibility for fixing the wages, hours, and conditions of labor should be assumed as a public function to be performed through an appropriate public agency. That is not going into much detail, but we have got to the point where we can not leave the determination of wages, hours, and conditions of labor to the private companies without public control. There are too many things involved. The welfare of the community—even, at times, the very stability of our institutions—may depend upon the keeping of order and the maintenance of public-utility services, transportation services.

We certainly have reached the point where we can not leave disputes as to wages and hours and conditions of labor to be fought out between the private employer and the men, without the public, that has the primary and ultimate interest, being responsible for the final settlement of the dispute.

My third statement in this connection: I want to say frankly that I believe that the strike, as a concerted effort to interrupt service in local transportation, should be prohibited and effectively penalized. I put that last because I do not believe that such action should be

taken except after the basis for it has been laid by providing adequate means for the prompt and effective settlement of disputes with justice to the employees through other measures than the strike. But I can not see how we can possibly tolerate the continuance of the right to strike, by that meaning the right to engage in a concerted effort to stop service on a public utility—a street-railway system.

That, of course, is a very difficult problem to work out in its details, but it is a vital one.

Coming to the final one of these fundamental questions—as to whether the street-railway business is to be conducted through public or private agencies, I have reached the conclusion that there is no ultimate solution of the problem unless we frankly undertake the local transportation function as a public function and perform it through public agencies.

Local transportation, in the first place, as I have said, is essentially a part of the city plan. It is a public function. The street railways can not exist except through the possession and use of special franchises in the public streets. Convenient and cheap transit has come to be an essential for the public convenience in large urban communities.

The necessity for public control has been recognized to an increasing extent, until now the street-railway companies could not possibly be permitted the freedom of initiative requisite to successful private business enterprises.

Public regulation of service, maintenance, wages, and other operating expenses is more difficult and more expensive when undertaken indirectly than where done directly. There is an irreconcilable conflict between the interests of the public and those of any private company operating a street-railway system for profit. The result is distrust, hatred, poisoning of the political atmosphere in cities. Instinctively the American people see that private operation of a public function for profit tends to be corrupting. The public will not stand for the new privileges and exemptions that under present conditions would be necessary to enable the street railways as a private business to prosper and expand to meet the growing public needs. Chaos has been introduced into the field of regulation by this conflict of policy between the State commissions and the local authorities, to which I have already called attention, and regulation has in a large measure broken down. The condition of the companies, the condition of the industry at the time, may be cited as Exhibit A in the proof thereof. Of course, that does not prove—that is an assertion; it does not prove—that public regulation could not be perfected so as to overcome the mistakes that have been made and the limitations that have developed, and be more successful in the future than it has been in the past. I think the difficulties are fundamental and that it is the hardest way and that we are bound to come to the other conclusion before we reach any solution.

The cost of new capital under private ownership under existing conditions is practically prohibitive. Let us go back to what we were discussing a while ago. Take companies that are overcapitalized and take companies that, being overcapitalized and not being able to earn a fair return, by that very reason demand a higher rate of return, 8 per cent being demanded now. The higher the rate of return—that

is, the more the risk—the worse off the company is, and the greater the risk, the higher the rate of return, the higher the cost of capital. And if we were to allow, even after a substantial compromise, the companies' claims at the present time as to valuation and then allow them 8 per cent return upon it, we would be paying for our capital charges for the street-railway service, I think, at least double what capital would cost under public ownership and operation on a conservative capital value to start with. Of course, if a city in taking over the companies should take them over at a price which has bankrupted them, the cost of capital for the city would continue to be excessive, although the cost of additional capital would not be so great.

So far as I can see, really conservative financial policies under private ownership are now impracticable. All schemes of private ownership and operation break down because they are inconsistent with the degree of public control that is made necessary by the nature of the business.

Profit-sharing and service-at-cost plans under private ownership do away with the advantages of private ownership in large part and entail the principal disadvantages of public ownership without its advantages.

We have the New York subway plan, a hybrid plan, incorporated in the subway contracts, of which at the time the contracts were made, I made this criticism, that it embodied all of the bad features of private ownership and all the bad features of public ownership without many of the good features of either. And we now have a situation which is extremely embarrassing. Six years ago these contracts were entered into. The city said, "In order to avoid the necessity of public operation which we do not want to undertake except as a last resort, we will induce the existing companies to operate an expanded rapid-transit system, to agree to operate extensions as we build them in the future, to supply a portion of the capital required for this expansion, and in order to do so we will say to the companies, you will be guaranteed for the next 50 years as a preferential all of the profits which you are now making, plus 6 per cent upon the additional capital which you furnish, and then the city, after that, will take a percentage on the capital that it furnishes sufficient to balance the amount that you are allowed as a preferential. Then, after that, what is left we will divide 50-50."

As it seemed then—it has proven much worse than we expected—but as it seemed to me then, the preferentials were so high, and the city's preferential put into the contract as compensating feature—the city's second preferential being more than the cost of the capital—was so high that there was practically no chance of there ever being anything to divide, and that being obvious, the companies have no motive left except to earn their preferentials and spend the city's margin. They had their hands in the city's pocket to that extent. Now, with the great increase in costs, it has got to the point where, contrary to everybody's expectations, the companies have no prospect of earning their preferentials and are now bringing great pressure to bear on the city government to increase the fares. They truly point to the increased cost of service.

They say, "The subways will have to go into a receiver's hands; our surplus is being depleted and we can not run them much longer."

They say, "Increase the fares. The city will get the benefit of it. We will earn our preferentials and then the city will have something on its investment." But if you do not increase the fares, we won't do anything, we are going to hang on to these contracts. Why? Because we are entitled to make up this preferential, and if we do not make it this year, we have 50 years to make it up—it is cumulative—before the city gets a cent on its new investment." And the result is that we have contracts for 50 years which we will have to move heaven and earth to get the companies even in their great distress to surrender or consent to modify.

Now, what is at stake? If the fares are increased on the surface lines, where the companies are already in receivers' hands, without being increased on the subway, it looks to the ordinary man that it will merely drive enough traffic to the rapid-transit lines so that the increase will not do the surface lines any good. And we have between 30 and 40 separate operating street-railway companies in New York. They are combined in three or four systems under common control, under these holding-company controls, but so far as regulation is concerned—the power of the commission—they are independent operating companies. Now, you can not increase rates on one that is in a position of competition with the other unless you increase rates on the other, without dislocating traffic and defeating your purpose. The result is that we in New York, so far as I can see, have before us as a preliminary requirement for any adequate solution of the problem getting all these companies and all this property pooled into one, operated as a single unit and financed as a single unit. We never in the world can induce these different interests, some of them having a sure thing and some of them just hanging on by their teeth, to come voluntarily into a combination except at a prohibitive price. Again, we would have the same thing over again that the companies in Jersey had when they combined; perhaps not so bad, but we would have to pay an enormous price to get the subway, for example, the Interborough Rapid Transit Co., to surrender its preferential and come in with the rest of the companies. And these underlying companies that have these guaranteed leases, rentals, reaching away back many years—why should they voluntarily surrender their rights?

Now, I do not see how—take New York—I do not see how any solution can properly be worked out except through the taking of the property by the city through a process—I should hope it would be a perfected process—of condemnation, and putting the properties together.

Commissioner GADSDEN. Why is not a proper solution for the immediate present, at least, of that particular situation an increase of fare, as elsewhere?

Mr. WILCOX. Well, of course, I have not admitted that an increase of fare anywhere else is the solution.

Commissioner GADSDEN. I said for the present, at least. I am meeting you on your own ground. Why is not the temporary remedy in New York an increase in fare, as it apparently is elsewhere?

Mr. WILCOX. If you increase fares, see what you would have to do. You would have to be absolutely arbitrary. You have 30 or 35 op-

erating companies, operating under different conditions of prosperity or adversity. In order to have an increase of fare work, you need to make it uniform to all these companies just referred to. That is contrary, so far as I can see, to the powers of the public-service commission. What right have they to increase fares for everybody, indiscriminately, without determining the value of the property and the requirements of the particular line?

We are confronted with the prospect, if that were done, of the same kind of trouble that they have in Boston, so far as I can see. Of course, I do not know. New York has spent \$250,000,000 of its own money that it has put behind the 5-cent fare for the rapid-transit lines for social purposes. Now, to give that up—to say, we give that all up—New York has broken its back, practically, to subsidize the 5-cent fare; it has assumed a burden of debt that has limited its possibility of carrying on other improvements, and for many years it will be loaded down with that burden—it involves a reversal of policy which is hard to justify theoretically and extremely hard to justify politically.

Commissioner GADSDEN. It would ease its burden and mend its back by making its own securities self-supporting, and they would come out of the debt limit.

Mr. WILCOX. We have no assurance of that.

Commissioner GADSDEN. But I say if it did it, it would ease its burden.

Mr. WILCOX. I know; but see: First the company comes in under this famous contract of ours, the companies come in with this maximum profit prior. Those profits represented the profits of congestion and poor service. They were profits that were abnormal, because the rapid-transit lines were indecently overcrowded. And yet, in order to get the companies to cooperate, the city and the commission felt compelled to guarantee those profits. Now, before the city gets any benefit from an increase in fares, the money goes in to make the companies absolutely whole for those preferentials, so they could lose nothing by reason of this great emergency that has come upon us. Now, whether there would be sufficient, with the increasing costs, after the companies' preferentials are met, to meet the city's debt charges, no one knows. If it works out the way it does in Boston, the chances are there would not be and we would have our trouble for our pains.

Commissioner GADSDEN. I do not want to prolong my discussion, but my reading of the newspapers indicated to me that the Interborough had offered to give the city 1 cent of the increase so that—

Mr. WILCOX. I believe the Interborough did say that 1 cent of the increase could be applied to the city's interest and, of course, if that arrangement were made, to that extent it would be so.

Mr. WARREN. Well, Dr. Wilcox, I do not want to interrupt you, but do not your figures in Boston show that a very substantial increase in revenue did result on the Boston Elevated lines from the increased rates?

Mr. WILCOX. Oh, yes.

Mr. WARREN. In other words it would not—

Mr. WILCOX. Oh, yes; there is a considerable increase in revenue, but it has not been able thus far to keep up with the increase in cost of service under the Boston act.

Mr. WARREN. But they have been adding, I understand, a couple of million dollars a year for depreciation?

Mr. WILCOX. True.

Mr. WARREN. And 4 per cent on all the depreciating elements?

Mr. WILCOX. Yes.

Mr. WARREN. And they have been maintaining their property?

Mr. WILCOX. Yes.

Mr. WARREN. Some of which I am afraid few street railways elsewhere have been doing.

Mr. WILCOX. It may be that ultimately the Boston scheme will work out as the trustees hope, so that they may be able to work out at some rate or other. But putting a 10-cent fare into effect with a \$5,000,000 deficit for the year behind you and with the cost of service the last month of that year being 10 and a fraction cents, and the certainty that when the 10-cent fare goes into effect the number of passengers will considerably decrease, does not look like arriving at a solution.

Mr. WARREN. Well, of course, they are assuming a great many burdens which formerly were not assumed by the company, like this \$2,000,000 depreciation and a very large amount for maintenance of tracks. You can not go about Boston without seeing more track-maintenance work going on this summer than you would have seen in the last four or five years.

Mr. WILCOX. Well, it may be that in Boston, under the public trustees, the property will be rehabilitated out of earnings and turned back to the company at the end of 10 years worth a great deal more than it was when they took it. That may be; I do not know. But unless they are doing that, this depreciation is an essential and necessary part of the cost of service, and you can not ignore it without getting into trouble in the long run.

Now Mr. Gadsden, I believe, said that he would not let me off without a solution.

Commissioner GADSDEN. A solution; yes, sir.

Mr. WILCOX. Well, I have got a number of things noted down here that should be done and should not be done. I think——

Commissioner MEEKER. Are you ready to present your solution now? Have you got to that point?

Mr. WILCOX. Well, I do not know really whether it is a solution or not. I think that a declaration should be made, to clear the air, that public ownership and operation by municipal authority where practicable and otherwise by district or State authorities is the ultimate public policy to be inaugurated as speedily as possible under proper conditions.

That the enactment in all the States of the necessary constitutional amendments and statutes conferring powers for municipal ownership and operation upon the municipalities and providing for the establishment of the necessary public-utility districts where municipal operation is impracticable should be proceeded with.

That the enactment of the necessary constitutional amendments or statutes putting the municipalities in a position to utilize their own credit as well as the security of the transit property and the transit revenues as far as necessary for the purchase and construction of the transit lines should be put through.

In that connection, we have the illustration of the way in which the city of Seattle was enabled to take hold of the property and take over the local lines by the use of the Washington law—which is peculiar to Washington and one or two other States in the northwest—which permits, in the case of the acquisition by a municipality of a public utility, the issuance of bonds outside of the debt limit, which are secured not on the city's credit and not on the property of the utility but on the revenues of the utility. The return upon the investment—that is, the bond interest—is made a first lien upon the gross earnings, and the usual process or way of dividing the gross earnings is reversed. The city must take out so much which is sufficient to pay the bond interest, and pay it, and then if there is a deficiency it has to make it up out of taxes. Now, that has been passed upon by the Washington State Supreme Court and held to be constitutional, although the provision limiting the debt in Washington is in general similar to that in New York and some other States.

Commissioner BEALL. Did you make up any deficit from operation out of taxes?

Mr. WILCOX. If necessary.

Commissioner BEALL. Well, are you sure that applies to Seattle?

Mr. WILCOX. Yes.

Commissioner BEALL. I do not think it does. I think there is a question on that.

Mr. WILCOX. I went into it very carefully.

Commissioner BEALL. I do not think you can sell those bonds to-day.

Mr. WILCOX. Well, perhaps you can not sell them, but the company who owned the property took them in purchase.

Commissioner BEALL. I know they did, but I do not think the company could sell them.

Mr. WILCOX. Well, perhaps they could not, but they get their 5 per cent, though. The Supreme Court of the State of Washington passed upon that very issue and upheld the plan.

Commissioner BEALL. Well, to make it a little clearer, regardless of what occurred there, you would favor, in case the revenue of the company did not suffice, that then the city would have to levy taxes to make good that deficit?

Mr. WILCOX. Oh, certainly.

Commissioner BEALL. I am trying to get at your plan.

Mr. WILCOX. Yes. I do not mean to say that I favor this plan as opposed to the plan of the use of the city's general credit, but I do say that this plan may be usable in States where it is impracticable to get constitutional provisions changed.

Mr. WARREN. But in either case you would expect the city to stand behind the bonds?

Mr. WILCOX. Certainly. The enactment of a public-utility condemnation law or laws that will enable a municipality or a public-utility district or the State to acquire existing transit lines at a price fixed by an intelligent tribunal upon the submission of evidence by either or both parties, the award to be based upon the fair value of the company's interest in the property, due consideration being given to the effect of franchise obligations, should be enacted.

I consider that very important because, frankly, from the public point of view, the people are very much averse to condemnation proceedings, because the results of condemnation proceedings in taking private lands for public purposes have been very disappointing to the public. That, I think, is based upon the idea, or has resulted from the idea, that private property taken away from an individual against his will brings a situation where every doubt should be resolved in his favor; and if you do not know exactly, if there is a dispute in the evidence as to what the land is worth, give him the benefit of the doubt. The public is taking it away from him. Now, that presumption, I think, is almost universal; it is almost a matter of law in ordinary condemnation proceedings. Now, if it is possible to work out a public-utility condemnation law which would change that presumption, I think it should be done. I do not believe that the presumption is a legitimate one in the taking of public-utility property to be continued in public-utility service. It is already affected with a public interest; it is devoted to public service. For the State or the city as a matter of public policy to take that property and continue it in that same service through a direct agency rather than through private parties does not legitimately involve the necessity of giving the benefit of the doubt to the private owner and paying him more than the ordinary fair price.

Commissioner GADSDEN. Do you not think that the city ought to be required to pay that price upon condemnation and not have the election to take it or leave it?

Mr. WILCOX. I think that when the city has determined its policy as to the acquisition of property and a reasonable method of determining the value has been fixed the proceeding ought to go through. I would be very careful from a public point of view and the city's point of view about getting the right procedure and about submitting the right evidence. But the result, I think, ought to stick.

Mr. WARREN. But you would provide that in a State law?

Mr. WILCOX. Oh, yes.

Mr. WARREN. Applicable to all places within the jurisdiction?

Mr. WILCOX. Yes.

Commissioner MEEKER. Would not there be danger of the municipality getting stung under this law as they have so frequently been stung under the present condemnation law?

Mr. WILCOX. Well, of course, there is always danger; there is great danger if you enter, or try to enter, into an agreement, that you may get overreached and stung. I do not know how far it would be possible to go, but I would like to see this condemnation law go somewhat into the rules for the establishment of value. The courts might not stand for it, but I think that calling attention to certain things in the condemnation law will at least put the cities and the attorneys representing their interests on their guard, so that the proper evidence would be presented before the condemnation commission or the public-service commission, as the case may be.

I mean this, for example: While I was deputy commissioner of water supply we were looking into the value of certain private water companies with respect to the possibility of reducing rates and also with respect to the possibility of taking over their property.

Now, one of these companies had a lot of land which was in the city. The community had been growing up around it; it was becoming less and less valuable all the time for water purposes and more and more valuable all the time for other purposes. Now, I think public-utility property that is being condemned should be condemned on the theory that it is devoted to public service and that the company is not free to release it from public service and sell it for something else, because so long as it is needed for that service it is bound to be used for that service, and therefore the property is subject to the obligations and disabilities of property so used and is not worth as much as it would be if the owners were free to dispose of it for any purpose.

Now, I believe that that principle—it might not be of very great importance in connection with street railways generally—but I believe that principle could be applied to condemnation of public property and that it would tend to keep the valuation from being, from the public point of view at least, what would seem to be excessive.

Mr. WARREN. Your plan, of course, would not preclude the public agency, whatever it was, from purchasing by negotiation before it resorted to this condemnation proceeding?

Mr. WILCOX. No; I think, however, as I will state later—I believe that any contract for purchase ought to be subject to the approval of the State commission, because sometimes parties that are nominally on opposite sides of the table are really on the same side of the table and they reach agreements which need to be viséed.

Now, with respect to public-service commissions: Of course, they are now existing in nearly all the States, although their jurisdiction is not uniform. I think that wherever it is still necessary, legislation should be enacted creating State public service commissions with jurisdiction over street and interurban railways with respect to capitalization, books and accounts, and interurban service and rates, and equipped with facilities for making valuations and advising municipalities on all matters relating to public-utility operations or control. These commissions should have limited jurisdiction over municipally owned utilities extending to matters of accounting and reports and extra territorial operations. That is repeating somewhat what I said before.

Legislation should be enacted, wherever still necessary, authorizing the municipalities to enter into service-at-cost contracts with street-railway companies, with the right to purchase at a price fixed in the contract and approved by the State commission and with provision for the amortization of the purchase price out of earnings wherever desired, and with the option on the part of the municipality to prescribe the rates of fare within its limits and make up out of taxes or otherwise any deficits occurring under such rates and certified by the State commission as actual and necessary; all service-at-cost contracts to be subject to approval by the commission.

In that connection, the question was asked me just before recess about the function of the State commissions under a service-at-cost plan with respect to fixing rates. Perhaps I did not bring out clearly enough this fact: The theory of the service-at-cost plan is that the amount of revenues required is fixed automatically, or nearly so. The principles are laid down, and it is merely a question of applying

figures to determine how much revenues are required. There would be, however, in minor matters, in the interpretation of the contract, questions which would have to be submitted to arbitration or to an impartial body. I think it is quite proper that that body should be the State commission, properly organized.

I think that the zoning plan on street-surface lines might well be adopted where it is impracticable to continue operation at a 5-cent fare, not on the basis that has been suggested in most American zoning plans, of the 5-cent fare or 6 or 7-cent fare as a minimum, but on the basis of a lower minimum for a shorter ride, so that we get the benefit of the British plan of developing short-haul traffic and filling up the cars in the off-peak hours. Of course, the rush-hour traffic is most expensive, because the cars that are used then have to be run at other times only partly full, or not run at all. And as I understand the results of the British fare system, one of the most striking results has been the leveling up of the load so that the peaks—the rush-hour peaks—are by no means so sharp as they are in this country.

Commissioner MEEKER. Have you any statistics showing the number of cars operated at different hours on the British systems and the number of passengers carried?

Mr. WILCOX. I have not any available now. The number of passengers carried per car-mile indicates in a general way.

Commissioner SWEET. That is in this exhibit?

Mr. WILCOX. Yes; it is given there.

Commissioner MEEKER. However, that does not give the distribution; and if you could get that material it would be very useful.

Mr. WILCOX. I am not sure, but if you had Mr. Jackson, who has made a special study on that, he could give you all that information and would be glad to do so.

Commissioner SWEET. Mr. Jackson is coming, is he not?

The CHAIRMAN. Yes; Mr. Jackson is going to be here.

Mr. WILCOX. Well, he can give you that much better than I can.

The CHAIRMAN. He has accepted the invitation, has he not?

Mr. OGBURN. I was not able to reach him.

Mr. WILCOX. He told me that he would be glad to come down if you wished him.

The CHAIRMAN. We are anxious to hear him. If it is convenient we will adjourn now until 8 o'clock to-night.

(Whereupon, at 5 o'clock p. m., an adjournment was taken until 8 o'clock p. m.)

EVENING SESSION.

The CHAIRMAN. You may proceed, Doctor.

STATEMENT OF MR. DELOS F. WILCOX—Continued.

Mr. WILCOX. I think I had just reached a point where I was going to suggest that wherever a 5-cent fare proves to be inadequate a zone system be installed with a lower fare for the initial zone, for the purpose of developing the short-haul business and filling up the cars during the daytime when they otherwise run pretty nearly empty.

In cities having rapid-transit lines, such as New York and, perhaps, some other cities, I think it would be advisable to maintain the uniform fare for the rapid-transit lines and develop the zone systems on the surface lines for the purpose of taking care of the short-haul traffic and feeding the rapid-transit lines. Of course, that is a problem that has got to be worked out to a certain extent in each community, on account of its characteristics and the traffic characteristics.

I think that motor-bus operation should be installed where practicable to supplement and feed the street-car lines, but not to compete with them.

The CHAIRMAN. To be a part of the system?

Mr. WILCOX. To be a part of the system; yes.

The CHAIRMAN. Is that tried at any place in this country?

Mr. WILCOX. San Francisco is doing it on its municipal lines.

Commissioner GADSDEN. Mr. Bradley testified that Stone & Webster were doing it on several lines.

Mr. WILCOX. And a good many of the British cities are doing it where the traffic is not dense enough to warrant the cost of installing permanent tracks.

The CHAIRMAN. Does the use of the bus by the systems prevent competition from other jitneys?

Mr. WILCOX. No; because the jitneys would not render service at the points where bus lines that are supplementary would run. The jitneys ordinarily compete for the dense traffic, while these bus lines would be supplementary for the purpose of taking the thin traffic, the outlying traffic.

I know no way of escaping from the effects of the jitney competition, except either through prohibition or through the zoning plan at so low a fare that the jitneys can not thrive on the competition.

Commissioner GADSDEN. Don't you think proper regulation would put most of them out of business? If they were made public carriers, would not that be effective?

Mr. WILCOX. It is very difficult, from the point of view of public sentiment—it certainly would be in Newark, and I judge it is in Massachusetts—to put regulations on the jitneys that will be severe enough to destroy the competition; and it becomes more and more difficult if the street-railway rates are increased, because the people will not stand for it. If the jitneys are willing to carry them for a nickel why should they be driven out and the riders be compelled to pay 6 or 7 or 8 or 10 cents to the street-car? That is what they will say. And no regulation is of any account unless it can be supported by the community.

Commissioner GADSDEN. But you could require them, for instance, to operate 18 hours a day, like a street car, and to operate during bad weather as well as good, could you not?

Mr. WILCOX. That could be done; but even that, if it resulted in really decreasing the service that they rendered, by driving them out—I do not believe that communities in a place like Newark would stand for it.

Commissioner GADSDEN. But we are discussing now what they ought to stand for; what is good, in the ultimate analysis, for the community.

Mr. WILCOX. So far as that is concerned, I do not believe in competing systems of local transportation, in the sense of a street-railway system and a jitney system competing with it. I believe that the local system of transportation, public common-carrier system, should be operated as a unit and coordinated and under one direction, one supervision, and that the whole financial returns should be pooled, and proper service rendered.

Commissioner GADSDEN. Under your suggestion of municipal ownership, you would not think the city would permit a jitney to compete with its own system?

Mr. WILCOX. I do not think they would. They probably would not. They would introduce bus systems to supplement their service, likely, and they simply would not license jitneys to compete with them; and I think that is proper. But you would have a pretty hard time getting a situation like Newark, for example. I know a year ago I made a traffic study; a year ago last winter or spring, I made something of a traffic study of Newark, and I had made a similar one five years before, when the jitneys were not there, and it was simply astonishing how they had developed; and when we had our hearings in the emergency case last year, Mr. Danforth, superintendent of the Public Service Railway, testified that the jitneys during the rush hour were a godsend to the Public Service Railway, because the Public Service had not been able to provide the means to take care of the traffic. But my observations and counts on the street indicated that the jitneys were carrying a larger proportion of the nonrush traffic than that of the rush-hour traffic; and that in every sense they were a deadly competitor of the street railway of Newark; and now, since the 7-cent fare went into effect, the jitney traffic has increased, and the Public Service traffic has decreased, so that studies which Mr. Danforth made in March indicated that the jitneys in New Jersey, in Public Service territory, the entire territory, were taking at the rate of about 80,000,000 passengers a year, as compared with four times as many taken by the Public Service. In other words, they are taking 20 per cent of the total traffic, and about \$4,000,000, according to Mr. Danforth's advices.

In the city of Newark itself, where the jitneys are licensed and have to report their receipts and pay a 5 per cent tax on their receipts every week, or every month, the returns show that from May, 1918, when the 5-cent Public Service fare was in effect, to May, 1919, when the 7-cent fare was in effect, the jitney traffic reported had increased 107 per cent, while the Public Service Railway traffic had fallen off 7 per cent, and to the best of my information, the normal increase of the Public Service traffic during that period would have been very nearly 10 per cent, because 1918 was about on the level of 1917, and 1919 has shown a big jump generally.

So the situation is certainly a deadly one for the street railways in Newark, and the same is true to a large extent in practically all the cities in New Jersey.

Commissioner GADSDEN. Would you mind giving us your personal views as to the relative merits in the future of that competition? Have you any conclusion on that?

Mr. WILCOX. The two methods of transportation can not live together. I do not think that the bus systems can be adequate to

furnish local-transportation service in large cities. It may be that in cities below a hundred thousand the bus system, if the street railways were out of existence entirely, might be developed reasonably to supply the service, and it might be that if, as I say, there were no street railways, the system of buses would be established, and the street railways never be built now. I am not sure of that.

In the larger cities, however, I think there is no doubt that we have got to have the street railway as a permanent and primary factor in the distribution of traffic.

My next suggestion is getting rather stale, now—namely, that lighter cars and more frequent service should be adopted wherever practicable, and that the street railways should be operated so as to furnish cheap and convenient service, and carry as many people as want to ride.

Public-utility commissions ought, I think, to adopt the rule, in all rate cases, that where the fair present value of the property is no greater than the par value of the bonds and other obligations outstanding upon which fixed charges are paid, the rate of return allowed upon the investment shall be no greater than the rate of interest paid on such bonds, and other obligations, to the end that stockholders having no capital investment represented in the present value of the property shall have no share in the return on capital.

I think that is important for this reason: We have, as I said to-day, a good many cases of gross overcapitalization. The men who are now in control come forward and try to save their positions in two ways: First, by finding all kinds of imaginary value, making the property appear to be worth a great deal more than it is; that is, that is my opinion, from the public point of view—trying to make it appear to be worth a great deal more than it is. That, of course, will tend, if they can get away with it, to cover up the overcapitalization. But if that does not go, they say: "Give us an 8 per cent return;" and an 8 per cent return upon \$50,000,000, that is represented by \$50,000,000 of bonds, upon which interest is paid at 5, or at the outside 6 per cent, leaves a margin of three-eighths or one-fourth, as the case may be, of the return upon the investment to be capitalized, or to be taken by the stockholders as an equity which, from the capital standpoint, does not exist. I do not think that where the par value of bonds, obligations which must ultimately be met, is equal to the full value of the property, the stockholders or the managers should be allowed anything for themselves in the form of a return upon capital. They have no capital interest in the industry, and their return or reward ought to be just like that of any other managers—the salaries they get, or, if you adopt the system of some scheme of bonus for good management, that bonus, or that reward, should not attach to capital as such, but to management as such. I think that should be recognized clearly, because the trouble, when we try to come to an agreement on these public-utility matters, is that the companies are all the time trying to put something over on the public, and the public in some cases, is trying to put something over on the utility; but to take the plan and say: "All right, we agree to that," and then to fix it so that the result is not the result that was intended, does not promote a final solution, and does not promote good relations.

Mr. WARREN. What would you do, Doctor, if the entire investment happened to be represented by stock, without any bonds, as occasionally does happen? I mean, as regards the amount of return.

Mr. WILCOX. Well, I will tell you. I think that under the plan that I would favor, of security of the investment, 6 per cent is sufficient, by and large. Of course, temporarily, you may have to allow a little more for present capital; but I have no doubt that 6 per cent is sufficient on the basis of complete security, both of the investment and of the return upon it.

Commissioner BEALL. If I may ask you a question—I suppose you know—if I understand your theory correctly, on that basis you could not raise any money for any street railway. I am talking about a private company—not where it is owned by the city. You could not get any money on that basis.

Mr. WILCOX. You mean just at the present moment?

Commissioner BEALL. No; I mean at any time.

Mr. WILCOX. Oh, yes; you could.

Commissioner BEALL. No; you could not.

Mr. WILCOX. Oh, yes; you could. Note what I said. You are forgetting the conditions that I laid down.

Commissioner BEALL. I say, if I understand your conditions.

Mr. WILCOX. I laid down the condition that the investment in the property should be absolutely secured, that the property representing the investment should not be allowed to deteriorate, should be properly maintained; that the franchise should not be permitted to expire, so that the property could not go on serving the public in that use, unless the property was taken, unless it was paid for, and the money paid back; and that the return, the fixed return—now, we are talking about 6 per cent, from year to year—should be guaranteed.

I say a scheme which would provide the necessary revenues, either from rates or from taxes or from some other source; and there you have an investment where the investment itself is secure, is not going to be disturbed, and you can either get your money back or continue it permanently.

Commissioner BEALL. But you can not raise all your money on 6 per cent. I don't know whether you understand that or not.

Mr. WILCOX. Well, I don't know—

Commissioner BEALL. No; you can not. Nobody in the country has handled more of that stuff than I have, for 30 years, and—

Mr. WILCOX. But you have never had such a proposition.

Commissioner BEALL. Well, we think we have had it.

Mr. WILCOX. I do not know of any in the country. Cleveland itself is not such a proposition.

Commissioner BEALL. That is one of the properties that I have handled.

Mr. WILCOX. Cleveland itself is not such a proposition, because in Cleveland there is a contingency; there is a contingency both as to the security of the investment itself at the end of the time—the city is not obligated to buy it; it is not obligated to renew the franchise. All it is obligated to do is not to give the franchise to somebody else unless he buys it.

Commissioner BEALL. Yes.

Mr. WILCOX. Now, the development of motor buses, of underground transit or overhead transit, comes along and makes the street

railway obsolete or sufficiently obsolete so that no company is going to buy that property at that price, and so the city is not going to buy it at that price—the owners of the property have no final security. I admit that their security is good, but it is not as good as what I am talking about.

Now, on the other hand, they are not guaranteed their 6 per cent, because there is a limit on the fare. They can get 6 per cent if they can earn it within that limit of the fare.

Commissioner BEALL. Let me ask you a question: You know why the Cleveland railway has been able, up to this time, to sell their 6 per cent stock at par and sometimes a little over?

Mr. WILCOX. I do not know that I do.

Commissioner BEALL. It is purely an artificial condition. It is because under the laws of Ohio that stock is legal for certain trustees and investors free of taxes, which the same kind of a property much better in a good many other States would not be. It is just like certain municipal bonds that are legal for savings banks in certain States, and that gives them an artificial market, which perhaps a better bond has not got.

What I am trying to get at is: Your Cleveland securities, or stock, which I have never handled at all—bonds, would not sell where it does as a purely investment proposition in the general market. It would not do it.

Mr. WILCOX. I did not know that.

Commissioner BEALL. It is simply due to artificial conditions.

Mr. WILCOX. But you can take the New York subways. That was true prior to the war, but here the city entered into a proposition, entered into an agreement with these companies which did not give these companies anything like as good a guaranty, as it has turned out, as I am talking about, and yet Morgan & Co. furnished \$165,000,000 at 6 per cent, which was to include not merely the rate of interest but was to include the entire amortization of that property within 50 years and its turning back to the city without the payment of a cent.

They made a mistake in estimating what the subways were going to do. Of course, they did not foresee this thing.

Commissioner BEALL. Nobody foresaw war conditions. That is the trouble.

Mr. WILCOX. No. They did not foresee that.

As far as I can see, this kind of a proposition that I am talking about is practically as good as a municipal bond. I do not see any real difference.

Commissioner BEALL. The subway was floated largely on the strength of the city's investment. That is what put it over.

Mr. WILCOX. True; but the city's investment did not give it as good a security as what I am talking about.

Commissioner BEALL. Well, they thought it did.

Mr. WARREN. As I understand it, Doctor, your plan would be a real guaranty?

Mr. WILCOX. Yes.

Mr. WARREN. You say 6 per cent. with a real guaranty?

Mr. WILCOX. I think that the importance of the street-railway business is such—it is a public function, and necessary for the de-

velopment of cities—that the cities can afford to assume the risk incidental to the investment, carry it; I do not think they can afford to let anybody else do it. It costs them too much. They could assume the risk and pay what is necessary for that purpose, and it will be a good deal less than what they have to pay somebody else to assume it.

The CHAIRMAN. When you speak of assuming the risk, you mean municipal ownership?

Mr. WILCOX. I mean through a guaranty. Municipal ownership would be one way, but not necessarily that.

Commissioner BEALL. How would you enforce that guaranty, if the earnings were not sufficient? You mean the city would, itself, out of its own pocket—

Mr. WILCOX. That is what I said.

Commissioner BEAL. I did not catch that.

Mr. WILCOX. I said a service-at-cost contract which would provide for flexibility of revenues sufficient to earn the fixed, guaranteed return upon the investment; those revenues to be derived, at the option of the city, from increases in fares or, if the city preferred to make them up through taxes or some other source, it could do it.

Under the contract, the city would be compelled to see that the revenues were produced, and that the company got its money. I do not think that the public generally will make such contracts, because I do not think they will make them with private companies. I think the solution is public ownership. I think they ought to have the right to make such a contract; and if they did make such a contract the company's security would be absolute—just as nearly absolute as you can get.

Mr. WARREN. That is, the investors' security?

Mr. WILCOX. Yes.

Commissioner BEALL. That is making it practically a municipal obligation?

Mr. WILCOX. It certainly is.

Mr. WARREN. How does that differ from the Boston situation? The Boston Elevated stock does not sell on anything like a 6 per cent basis yet.

Commissioner BEALL. That is only guaranteed for 10 years.

Mr. WARREN. Yes. You think that would make a difference?

Mr. WILCOX. That would make some difference, certainly.

Mr. WARREN. It does not seem as if it ought to make as much difference as the market value of the stock is selling for—the last figures I recall are something under 70, with a 5 per cent dividend for, I think, three years, 5½ for two, and 6 for the balance.

Mr. WILCOX. Of course, it may be—I am not much of a financial expert—it may be that now, when capital is scarce, when it has been consumed through the operations of the war, and it is hard to get money, it may be that temporarily a 6 per cent rate would not be sufficient to provide that money. If so, then the people who are holding the securities can not sell them at par at that time; but they can keep them and, in the long run they would come out all right.

The CHAIRMAN. Do you mean, Doctor, that you believe that cities should guarantee a return to a privately owned and privately operated street-car system?

Mr. WILCOX. I believe in public ownership and operation.

The CHAIRMAN. I know you believe in public ownership, but a moment ago you said you did believe the city should have the right to make such a guaranty for a private company.

Mr. WILCOX. I say I believe the cities, as a step in the development of an ultimate policy, should have the right, subject to the approval of the State commission, to enter into a service-at-cost contract with the street-railway company; I would not permit them to enter into it so that they would be tied up hand and foot and not get out by buying the property, or anything of that sort; but I would be willing that the cities should have the power, subject to the approval of the State commission, to enter into just such a contract as I have mentioned.

The CHAIRMAN. That the guaranty should be predicated upon a cost-of-service plan?

Mr. WILCOX. A cost-of-service plan, undoubtedly; and coupled with it the right—not merely the barren, nominal right, but a really fully-developed right—with all the financial legislation necessary, and all the enabling legislation necessary, so that the city can, as a matter of fact, if it does not like its bargain, take the property over. I do not care anything about these contracts that merely say that the city can do it if it wants to, while there is no legislation that enables it, practically, to adopt the plan, and legislation which, when it tries to get it, may be blocked, perhaps, by the very company that the city has made a contract with, because the company may not want to unload.

I think that municipal contracts limiting rates should not be abrogated until the value of the property, subject to the limitations of such contracts, has been fixed and a reasonable settlement of the capital account for future purchase has been made.

Of course, these statements I make are quite general, and all of them have to be modified to a certain extent in applying to individual cases and when you ask me questions. But my idea there is this: The street-railway business has been on a speculative basis. People came in and got their franchises and went out and treated them as property.

If we wanted to buy franchises, to buy street-railway property a few years ago, or even when the companies came in and wanted a resettlement, and the city agreed on a resettlement, the companies insisted that the earning power of those franchises, over and above the physical property, should be capitalized, paid for in case of purchase, and put in the capital account in case of resettlement.

It is true, even in Cleveland, that the fag-end franchises that had not expired in 1910 are capitalized and in the value now, forever, unless something is done that is not contemplated in the contract.

It is the same way in Chicago, but even a worse case was Kansas City; although in Kansas City they made some provision for amortizing that dead capital and getting it out ultimately, if the earnings were sufficient.

Now, we have come to the point where the franchises with rate obligations in them are not assets but liabilities; and I do not think that the municipalities ought to be called upon, before reaching a definite settlement as to the purchase price, to abrogate the advantage which they hold where those contracts exist with definite rate

obligations in them. If a franchise is a good asset to sell to the city when times are good, then I think it ought to be a good liability to sell when times are poor.

We talk about the municipalities being easy. We criticize—the very companies and the very people who are opposed to municipal ownership tell how poorly municipalities are run; how expensively they are run. What could be poorer management than always to take the short end of the bargain, always to give up the rights that you have to the companies with whom you have contracted, while if they have any rights they are enforced to the letter?

Of course, these things have to be tempered somewhat in actual settlement, but I do not think it is a good thing to break these municipal contracts without first having a resettlement and an establishment of the value of the property as a basis for future purchase.

The CHAIRMAN. What should be the rule in a case of this kind: A franchise has lived its life, and the plant is operating simply as a licensee. It has not set aside a fund to take care of its investment. The property is there, capable of giving good service, and it is giving good service. The city wants it. What should the city pay for it?

Mr. WILCOX. The United States Supreme Court has settled in the Denver and Detroit cases the law, as I understand it, that a public utility that is operating without a franchise is entitled to earn a fair return upon the fair value of its property.

The CHAIRMAN. It uses the term "Investment," I believe.

Mr. WILCOX. Investment. And that the fact of the franchise having expired is no excuse, and gives no authority to the city to treat the property as scrap, or as less than a going property, in fixing rates while the city continues to permit the company and require the company to render service.

Where the franchise has expired, then the company is not subject to that obligation. It has no franchise. In some States, at any rate, it is subject to the will of the community, which can if it wishes expel it from the streets; but practically, the community does not want to expel it from the streets, and will not do it.

I think under such circumstances if the property is in good condition—I mean, is the kind of property that the city wants to acquire and operate—it ought to pay the price, the present value of the physical property.

The CHAIRMAN. Do you believe that property is protected by the Constitution, as well as property that is operated under a franchise?

Mr. WILCOX. No. It is not protected in this way: If the municipality wants to throw the companies out of the streets, it can do so, and they have no protection. But if the municipality wants the property, if it wants to get that property and take possession of it, it has got to pay for it; it has to pay for what it takes, not on the basis of scrap value, but on the basis of its actual, going value. It would not have to pay for the franchise, because there is no franchise; and it can not deduct any franchise obligation from the value of the property, because there is no franchise obligation. That is my idea of the matter, anyway. I think that rates should not be increased in such a way as to diminish traffic and stimulate competition; and under no conditions should the street railway be permitted

to continue in operation while at the same time abandoning its function as a public utility, rendering service at attractive rates.

As I said before, I make these general statements as a general rule. Now, in an exigency, in tiding over an emergency, until you can get on a permanent basis, inaugurate a permanent policy, if you have such a policy to inaugurate, why some of these would have to be modified somewhat.

I think, however, that nothing should be done in an emergency that runs counter to the correct permanent policy and makes it more difficult, rather than less difficult, to work that policy out.

With regard to transfers, I think that where the flat fare is retained, transfers should be free. Where a zone fare, with a low initial rate is installed, with the proper coordination of zone limits to transfer and heavy-loading points, no transfers are necessary.

My reason for being opposed to a charge for transfers under the flat fare is that it seems to me free transfers are a part of the theory of the flat fare and uniform fare within a given limit.

It is not the fault of the car rider that he has to change cars. There is no reason why he should be penalized for the inconvenience and trouble that he is caused by having to get off one car and wait for another, perhaps not getting a seat on the second and taking longer to get to his destination than if he had through service.

The system of transfers is really established, has been established, for the benefit of the company to make convenient routing of its cars, so that it will not be compelled to take every passenger home by a single car.

There is very little in the argument that a transferred passenger costs more than a passenger who rides on a single car, assuming that on the average he rides no further.

There is something in the accidents—the on and off accidents. There is a little something in the printing of the transfer and the handling of the transfer; but those items are almost infinitesimal in the total cost of the street-railway service; and when it comes to the matter of accidents, why should we think of the expense to the street-railway company and not think of the danger to the passenger? If he has to run the risk of being killed or maimed by transferring, why should he be penalized for taking that risk? We can not assume that he is better off if he is hurt than if he is not—although it is possible that in a few cases that might be so.

Now, with respect to stops, the cost of stopping: A car does not stop for transfer passengers alone. Transfers are always given, practically always given, at points where passengers would be alighting and getting on the cars anyway—heavy-loading points. Consequently there is no justice, so far as I can see, in charging up the cost of extra stops to the transfer passenger. They sometimes say: "Why, two sets of trainmen and two cars work for this man." That is absurd. One car works for this man a certain distance, and then goes on and works for other people, about its business, and another car picks him up, which has been working for other people, about its business. Two cars do not work for him at the same time. If he did not transfer, they would have to have just as many cars in use; and, as far as I can see, there is almost

no—almost no additional cost in transferring passengers; and what little there is is much more than offset by the decrease in the value of the service to the transferred passenger.

Commissioner GADSDEN. Don't you recognize the abuse of it? What about the abuse feature?

Mr. WILCOX. There are abuses of the transfer system; that is true. If you want a system where you make a man pay a penny for a transfer and get a rebate when he uses it, to prevent that abuse, I have no objection to that. Of course, there are abuses of the transfer system.

Commissioner SWEET. That is done in Cleveland, is it not?

Mr. WILCOX. At times. It depends on the stage of the schedule.

The CHAIRMAN. You condemn the use of transfers where the flat fare is being charged. Then, upon what theory do you favor it where the zone system is used?

Commissioner SWEET. He does not.

Mr. WILCOX. I do not favor it. I say there should be no transfers at all—neither transfer nor transfer charges. You ride a short distance and pay for a short ride, and then get off and ride another short distance on the other car, and pay again. There is not any particular need of transfers, because your unit fare is so small.

The CHAIRMAN. I misunderstood your statement, then.

Commissioner SWEET. I understood his position as he has just stated it.

Mr. WARREN. You would have no transfers where you have the zone system?

Mr. WILCOX. If you have a sufficiently low rate.

Mr. WARREN. Initial rate?

Mr. WILCOX. Yes; and have the zoning points properly adjusted to the heavy loading points.

Mr. HALL, of Nebraska. May I ask a question, Mr. Chairman?

The CHAIRMAN. Yes.

Mr. HALL. Where you have the flat-fare system, you say universal transfers should be recognized—that is, where you have no zone system?

Mr. WILCOX. Yes.

Mr. HALL. But where you have the zone system, and the initial rate is low, then there should be no transfer, because the initial rider rides a short distance and pays a low fare, and he gets a low fare because he rides a short distance?

Mr. WILCOX. Yes.

Mr. HALL. Now, I would like to ask you: Have you made a study as to the effect upon the short rider—the numbers of the short rider—where there is no transfer as compared with the transfer?

Mr. WILCOX. It is difficult to do that, because, as I understand your question, it would involve a comparison of the riding habit under a zone system as it is practiced in England with riding under our system.

Mr. HALL. Yes.

Mr. WILCOX. And it is true, as all the statistics show, that the amount of short-haul riding under the British zone system without transfers is simply immense. It is out of all proportion to what we have in this country. But how it is affected by the absence of transfers I don't know.

They have, as I understand, in certain English cities, a kind of a transfer which is just merely a ticket to indicate that the passenger is entitled to ride a certain distance, and if he changes his car, that indicates that he has paid until he gets to the end of that ride. Of course, that is a convenience, and if the zoning points were not properly arranged, or if the initial rates were above a pretty low amount, it might be desirable, or even necessary, to have such an arrangement; but the abuses of the transfer system, and the difficulties of handling it are so great that if you have a system that does not work any great amount of injustice without the transfers at all, it is better, I think, to leave them out.

Commissioner MEEKER. Do you intend to give us your ideas about the amount of the initial fare—of the single-zone fare?

Mr. WILCOX. We are in an experimental stage, so far as zoning is concerned, and there has not been very much study that I know of of the question of the initial fare from the point of view of a system like the British system. Most of the studies that we have had here, and most of the systems that have been proposed, have not attempted to go below the old standard fare. They have simply said: "We will charge in the central zone, or the first zone, 5 cents or 6 cents, or 7 cents, whatever it may be, and then add on the additional amount for people who ride farther."

Commissioner MEEKER. You believe, do you not, that a great deal would be added to the number of passengers riding if the initial fare were less than 5 cents?

Mr. WILCOX. I believe so. Of course that depends upon the individual traffic characteristics of the community.

In New Jersey, as a result of Mr. Jackson's testimony—I think Mr. Jackson and Dr. Whitten, the Cleveland city planning expert, testified on zoning; and while the company had always bitterly opposed any thought of any fare less than 5 cents and would never think of considering it at all—after this testimony had been presented, and a few weeks passed on, and an exigency arose through a new award of the War Labor Board's increasing the wages more than had been anticipated, so that the company was of the opinion that it had to have still more money than its own zoning plan provided for, the company came in and said: "We have been impressed with the testimony adduced here with regard to the minimum fare in other jurisdictions. We are very grateful to the municipalities that it has been produced," and proposed a tentative plan. They proposed three rates, either one of which they thought would work out and give them the money that they felt they needed. One was a flat rate. They thought they required 9 cents and a cent for a transfer, in order to get the money that they required.

Next, they proposed a 5-cent rate for the first two zones, and then 2 cents a mile thereafter, and 1 cent for a transfer.

Third, the rate which they indicated they thought was the best one was 3 cents for the first mile zone and 2 cents a mile thereafter, without transfers.

Mr. WARREN. You mean without transfer charges?

Mr. WILCOX. Without transfers or transfer charges.

That rate, as you have already been informed by the commission and Mayor Gillen, has been authorized by the commission. It was

not contested by the municipality. It was brought in as an ad interim experimental rate, while the case with respect to the valuation of the property and the final determination of how much money the company was entitled to, and the final determination of the fare was pending; and that fare will go into effect on the 14th of September.

It is the theory that after the valuation is made and we know how much money the company is entitled to, after we have found out what this experimental rate will really produce, the commission and all parties concerned, will be called in to agree, is possible, upon a permanent rate. What that permanent rate will be I don't know. I think, personally, that while the initial 3 cents is good, I think that 2 cents a mile beyond the 3 cents for the first three or four miles is too high.

I think that for the proper development of traffic and to get the benefit of the zoning system and the small initial rate it ought to be low enough so that the passengers riding three or four or five miles, which would cover the bulk of the passengers in a comparatively large city, would get their transportation—the longest rider within those limits would get his transportation for not more than, I should say, 7 cents. That, of course, is a mere arbitrary statement—7 cents—it might be a little different. But I do not think that the fare ought to go above that, practically, within municipal limits.

Commissioner MEEKER. This initial 3-cent fare is for a 1-mile ride?

Mr. WILCOX. It is for a 1-mile ride, to start anywhere. It is not a central zone at all. You start anywhere and ride to the next zone point for 3 cents, and then you pay 2 cents for the next zone, and so on.

Commissioner MEEKER. But in no case can you ride more than a mile for 3 cents?

Mr. WILCOX. In no case.

Commissioner MEEKER. Do you think that that is likely to produce the maximum revenue?

Mr. WILCOX. I am inclined to think, as I just stated, that a better result would be produced by having 3 cents for the first mile and 1 cent a mile up to, say, 5 miles.

Commissioner MEEKER. That is to say, you would pay the 3 cents for the first mile, would you?

Mr. WILCOX. Well, as has been pointed out, as I wish to point out and as has been brought out by some questions, there is a very considerable difference of cost in transportation between British conditions and American conditions, because of the higher rates of wages and other things. I am not competent to say just how much that difference is; but I do not mean to indicate, when I say that Glasgow got 40 per cent of its revenue from 1-cent passengers, or that Liverpool got practically as much, or perhaps more—I have forgotten the exact figures—from 2-cent passengers—I do not mean to say that necessarily we should try to have a 2-cent fare or a 1-cent fare as the minimums over here, but I do not think that under a zone system it should be more than 3 cents, and I do think that for a ride of 3 or 4 and possibly 5 miles, the rate ought not to go up above 7 cents.

Commissioner MEEKER. What struck me was that the service rendered for 3 cents—namely, a maximum haul of 1 mile—would be

so small that probably very few would avail themselves of the short-haul service.

Mr. WILCOX. You must remember that—going back to Glasgow—

Mr. WARREN. What is the zone there, Doctor?

Mr. WILCOX. The zone there is 1 mile. It is not exactly a mile, but it is practically a mile.

Mr. WARREN. I had the idea that it used to be half a mile when they first took it over.

Mr. WILCOX. I think it did; but they extended it. It was their way of lowering fares. They extended the zones. You see a proper zoning system is very flexible. You can raise the fares by decreasing the zones a little.

Commissioner GADSDEN. Before you leave that subject, will you put into the record the reason for the first mile being 3 cents instead of 2 cents?

Mr. WILCOX. I do not know that I want to go on record on that.

Commissioner GADSDEN. The reason assigned—not your reason, but the reason that is given for it—on the readiness-to-serve principle.

Mr. WILCOX. Oh, well, the public-service zoning plan is based, I think, on logic that is preposterous. I do not believe in this stand-by and movement cost as the basis for distribution of street-railway fares. There may be some logic in it, but there is not enough in point of view of theory to justify its use, to my mind.

For example, they could figure out and they did it—they said the stand-by cost was just 4 cents. Well, it was within a very slight fraction of 4 cents. And the movement cost was 1 cent, and they got it by juggling a lot of figures on the basis of the analysis of terminal and movement costs, an analysis that was first worked out for another purpose by the Wisconsin Commission in the Milwaukee fare-zone case in 1912.

Commissioner MEEKER. Do you think you could make me understand what the stand-by cost means? I am a mere economist.

Mr. WILCOX. Well, it is easy to understand why there should be a stand-by cost or why it is logical to have a stand-by cost in water, telephone, or electric-lighting service, where every person before he can make use of the service has to have his property connected physically with the property of the company, whether he puts that in or the company puts it in. There is a definite connection which represents a considerable capital expenditure. It represents a more or less definite possible call upon the system for service. In order to get the service you must occupy a particular location and you have the option to use the service for a given period. Now, a stand-by charge is a proper element of cost in that case, I think. It is entirely different with the street-railway system. You do not have to have a little track running into your house in order that you may use the street-car, and the idea of having the same individual passenger every time he boards the car, whether it be twice a day or once a month, pay the same stand-by cost, to my mind is absurd.

To make it analogous to the other utilities, the householder, the man who lives in a house which is within reach of the street-railway service and has the surface road going by his door every day where he can use it, if he wishes, should pay a tax, a special tax or a special contribution which gives him the right to use it. Or you could

sell a man a commutation ticket or make him buy a commutation ticket that would give him the right to use the property for a month or a year. That would be logical, I think, on the basis of stand-by costs in other utilities. But I do not think there is anything in it in the manner in which it was worked out by the Public Service Railway Co.

Commissioner MEEKER. I am looking at this merely from the charging-what-the-traffic-will-bear viewpoint or principle, and what strikes me in the 3-cent initial fare is that very few people will ride. I will watch the New Jersey experiment with much interest.

Mr. WILCOX. Of course, I do not know what is going to happen. But we have this to consider. New Jersey street-railway traffic is shot to pieces by jitney competition. The jitneys thrive when the fare was the same, because, partly, of inadequate routing facilities of the street railways and partly because the jitneys go faster and pull up to the sidewalk, and partly because people like to ride in an automobile, it is supposed. So far as I could see from our observation, the riding was infinitely less comfortable in the jitneys than in the street-cars. They were more crowded; they were much more bumpy, and at night there were no lights practically; a little—well, like a miner's lamp up in the corner of the jitney, and it was so dark you could hardly see your neighbor's face, and all that. And still it appeared that the people rather preferred the jitneys at the same price. Now, of course, when people have to pay higher for the street-railway rides, they go to the jitneys in droves. I think with a 3-cent fare the first mile, with a cent a mile for the next 2 or 3 or 4 miles—say, 4 miles—so that would bring it up to 7 cents for a 5-mile ride, I think that, except where the route is inconvenient, most of the people would take the street-cars again rather than the jitneys. But I am afraid that 3 cents for 1 mile and 2 cent for each additional mile will pile up too quickly to a higher fare than the jitney to really overcome the jitney competition as much as it ought to be overcome for the benefit of the street railway.

Mr. WARREN. Is it your observation, Doctor, that the jitneys carry anybody as far as 5 miles for 5 cents fare in Newark? I do not know anything about it, but those I have seen—those we have in Massachusetts—carry them a pretty short distance.

Mr. WILCOX. Well, there are very few that go as far as 5 miles, at any rate. I think the maximum 5-cent rides, practically speaking, are about 3 or 3½ miles.

Commissioner SWEET. There was one other reason, was there not, why the jitneys have prospered the way they have in Newark, which was mentioned by Mayor Gillen, and that is that the street-car service is very poor?

Mr. WILCOX. Well, as Mr. Danforth said, the jitneys during that period were a godsend to the street-railway company because the street railway company could not supply all the service. I think that he made that statement rather offhand and really, perhaps, he wishes it was not in the record.

Commissioner GADSDEN. He meant on the peak load?

Mr. WILCOX. Yes.

Commissioner GADSDEN. You will be glad to give them all the business on the peak, would you not? You could go out of business

on the peak and let them handle it if they would take it, would you not?

Mr. WILCOX. Well, you would like to take as much of the peak as you could handle.

Commissioner GADSDEN. Then it would not be the peak; but I am talking about the peak.

Commissioner BEALL. There is one line I can not understand. You may have run across it. In Jersey City—I can not remember the street—there is a bus line from the outskirts of Bayonne into Jersey City and they charge 10 cents and they run over the rottenest streets you ever saw in your life. The street car company on the same streets only charges 5 cents and the buses get all the business on double the fare. Now, I know that because I have observed it.

Mr. WILCOX. Well, I am not very familiar with the situation there.

Commissioner BEALL. There is only one way I can account for it. I think from my observation there are a few more buses than cars, but the people will let the cars go by and wait for the buses. Now, I do not know whether it is just personal feeling against the company or not.

Mr. WILCOX. I imagine there is some personal feeling.

Commissioner BEALL. Have you run up against anything of that kind?

Mr. WILCOX. Well, no.

Commissioner BEALL. It is a very remarkable thing, when they charge 10 cents as against 5.

Mr. WILCOX. I have not information about the local situation in Jersey City.

Generally speaking, also, I do not think that rates should be increased until all practicable economies have been effected, nor until all practicable increases in revenue through development of traffic have been secured, nor until the collection and return of fares as nearly 100 per cent as practicable has been effected. Of course, I do not mean to say, in an emergency when you have not the money to put in one-man cars, that you shall require the improvements before any relief is given, but I mean to say that the thought of the street-railway men should not be, "First, give us more fares, more fares, higher fares; and then we will reform afterwards where reforms are needed," but the thought should be, from their point of view and also from the point of view of the regulatory authorities, that reforms and economies that are demonstrated as practicable should be put into effect prior to the granting of fare increases.

Of course, things have got to a pass where it is a good deal easier to get the other fellow to give you the money and then make a good promise about what you will do if he gives it to you than it is to try to do it first.

I want to say just a word about the service-at-cost plan from the point of view of its practicability under private operation.

It seems to me that the most difficult thing about it, and the thing that makes the problem almost insoluble, is the extreme difficulty of retaining the characteristic motive of private management about which so much is said under a system of such minute public regulation as is contemplated in the service-at-cost plan, particularly with the guaranteed and limited return upon the investment.

Efforts have been made, as I think has been pointed out to you here, in some places to weave in some kind of a motive which would give a sort of an artificial stimulus to the private motive for economy and efficiency under such a plan. But so far as I can see that problem of effectively developing and enlisting private motive under such conditions has not been solved.

The Montreal plan—I was called in on that to a certain extent and went over with the commission up there the financial scheme which was devised for the purpose of providing that motive—is in some ways an advance upon most other plans. I think the Cincinnati plan has certain advantages, although I have not had time to make a careful study of the Cincinnati plan.

The Montreal plan provides this: All the gross earnings are put into a fund. There is a permanent commission which has theoretically complete regulatory power over service, extensions, expenditures. This commission at the beginning of each year fixes a car-mile allowance for operating expenses, instead of having it fixed in the franchise, as it is in Cleveland, subject to modification by arbitration. Then, if the company lives within that allowance for the year, or does not go more than $2\frac{1}{2}$ per cent above the allowance, it is given a bonus, an operating profit, so called, amounting to one-eighth of 1 per cent upon the capital investment. If it overruns this operating allowance more than the $2\frac{1}{2}$ per cent it loses that bonus, and if the bonus is not sufficient to make up the amount that the allowance is overrun beyond $2\frac{1}{2}$ per cent, the company has to make it up out of a guaranty fund of its own that it has established. But that is not inflexible. It provides that if the company comes in within the first 60 days of the new year—either at the time or within 60 days after the close of the year—and demonstrates to the satisfaction of the commission that these operating expenses were necessarily incurred in providing the service which the commission required should be provided, then the penalty is remitted and the company will get the bonus just the same. In other words, there is a little semiautomatic feature there which is subject to review and the application or judgment through a commission at the close of each year.

Then an allowance is set aside also for maintenance. The city gets its pay, \$500,000 a year, in lieu of the old payments that were made, a division of earnings. The company has to put aside and develop a surplus in a contingent reserve which is really a surplus belonging to the business, sort of a steadying fund. It is to take up the slack in case the drains upon the gross earnings prior to it at any time are not sufficient. Then whatever is left over is divided in the following manner: Twenty per cent goes to the company to do with as it pleases; 30 per cent goes to the city to do with as it pleases; and 50 per cent goes into what they call a tolls reduction fund—they speak of tolls there; or a fare-reduction fund. This fare-reduction fund theoretically accumulates until, when it reaches \$1,000,000, the commission may, and when it reaches \$2,500,000 the commission must, reduce the fares; and they reduce the fares in this manner:

In order to provide a certain stability in fares, they appropriate one-fourth of the amount accumulated in the fund and pour it back

into the gross receipts, and then they reduce the fares by an amount which will at least cover the amount of this appropriation, but will not take up more than 75 per cent of the normal flow into the divisible profit in addition to the appropriation. So that they can not reduce the fare theoretically so as to actually stop and cut off entirely the divisible profit; and in that way they will have a sufficient amount in the fund so that they can repeat that process for at least four years and keep the new fare stationary.

That was put in on the theory—it was not very long ago, but we thought then that it was a good idea to have fares more or less stable rather than changing every other week, and the theory was that in that way we would get a certain stability and the fares would not then be reduced at the end of that time until the contingent reserve fund was depleted and needed to be replenished, and in case that occurred then it was the duty of the commission to increase the fares.

I do not know much about how it is working out, and I do not know how it is going to work out. The present fare is 6 cents with 5 tickets for 25 cents and certain workmen's tickets, so that the average fare, I believe, is a little less than 5 cents. But the last I knew, several months ago, the company was not earning the cost of service, and since then there has been a wage increase, and the new rates for the coming year have not been announced—or at least I have not seen them announced by the commission.

Commissioner BEALL. Well, there is not any maximum fare, is there?—as I remember it.

Mr. WILCOX. In Montreal?

Commissioner BEALL. Yes.

Mr. WILCOX. No.

Commissioner BEALL. The fare may go up to a quarter?

Mr. WILCOX. Yes.

Commissioner BEALL. There is absolutely no limit?

Mr. WILCOX. There is no limit up. That was based in a certain measure, although the franchise itself—I did not help in the preparation of the franchise as a whole but, to a certain extent, I suppose I am responsible for what went in there. I went up and talked to the commission. I was taken up there by a citizens' organization, and I talked the theory that the fare was the last thing to be fixed; they should fix, first, what service they wanted, what the value of the property was and the return upon it, and then fix the fares to meet it. And that feature of the program was adopted. I do not know whether I stand for all the things that I did a year or two ago now or not.

Mr. WARREN. Most of us in the industry do not.

Commissioner GADSDEN. You probably are the only one that would, connected with the railway.

Mr. WILCOX. Of course, one of the important things is to reduce and do away with, as far as practicable, the thieving. Now, I have a little pet theory of my own which is that the characteristic troubles of the street-railway companies in respect to the thieving conductors are due, in large part, to the condition of the atmosphere, the condition of public sentiment with respect to the company, and the bad example that the companies have set, and a great many of these conductors have heard Mr. Bryan tell about the differences

between petty larceny and grand larceny and glorious larceny, and they can not see why petty larceny should be punished where glorious larceny has been carried on successfully and rewarded.

I really seriously believe that the difficulty with respect to the collection of fares is largely due to that general attitude of distrust which the public has with respect to the street railways and their financial management; and it has grown up that way. Of course, precautions have got to be taken for the collection of fares under any system, but I think that has a good deal to do with the trouble. It may not be——

Mr. WARREN. Have you any idea how much it amounts to? Have you ever studied that at all?

Mr. WILCOX. Well, now, I have not, very much; but I understand that right here in Washington, after Mr. Beeler made his investigation last summer, there was a remarkable jump in the fares collected on the Washington Railway & Electric Co. I think 75 conductors were rounded up at one clip, and 15 or 20 more got away; and he told me that the fares increased \$500 a day, and that increase was maintained.

Mr. WARREN. On that one system?

Mr. WILCOX. Yes. And I know that on the Indianapolis system the Indianapolis Commission found there was quite a heavy loss that was not being taken care of in Indianapolis.

I think, gentlemen, I have——

The CHAIRMAN. Do you know what the estimated leakage in the fares in Buffalo amounted to?

Mr. WILCOX. No; I do not.

The CHAIRMAN. Some one reported to me it was about \$2,000 a day.

Mr. WARREN. How much?

The CHAIRMAN. \$2,000 a day. The one thing that the public is entitled to is to see that the money which it is paying for its service is being collected and accounted for.

Mr. WILCOX. There is no doubt about that. Now, gentlemen, I am ashamed of the time I have taken, but I think I am through.

The CHAIRMAN. Before we undertake any cross-examination, may I ask if you have any thoughts on the subject of economies in operation or service?

Mr. WILCOX. Well, I think this one-man car is very promising, and for a great portion of the service rendered on almost any system, both from the point of view of the company and of the public, can be beneficially adopted and put into operation, with the advantage that the platform expense per car, per car-mile, is cut almost in two; the power consumption is more than cut in two, and on the strength of those economies it is possible to improve the service by putting on some additional cars and giving more frequent service and in that way picking up the people who rather than wait, where service is infrequent, would walk. I think that, in general, has been the experience of the companies that have experimented with the one-man car. And, as far as I can see, it is an element with very great promise in the future.

Now, a good deal has been said about the skip-stop, and I do not know that I ought to say very much about that, because I have not given it as much consideration as I perhaps should have. But I am

a little bit opposed to the extensive development of that skip-stop plan, especially in smaller towns where service is comparatively infrequent.

I know I was studying last year the Bethlehem situation, and it was then proposed to drop a lot of stops, and it seemed to me in a town like that, where street-railway service was infrequent anyway and where the great majority of the people walked, to make it more inconvenient for people to get the car, with the risk that, walking down to the corner, they would have to wait for another car because it would not stop at that corner—it seemed to me it was not worth while. It was decreasing the service where an increase of service in every way was necessary in order to develop the traffic that was good for the system.

Now, if you have a situation like you have here in Washington or in the dense-traffic centers where a car is coming along every two or three or four minutes, it is very different, and, of course, it is important that these stops should not be permitted to block traffic down town, and in that way essentially injure the speed of the service. But I think that the skip-stop program can easily be overdone in the enthusiasm to cut down expenses, and by cutting them down drive away traffic where the service is none too good anyway.

Mr. WARREN. Along the line of the chairman's question—have you had occasion to study the possibilities of municipal aid in facilitating the movement of cars, keeping the tracks clear, so that better headway and better speed could be made?

Mr. WILCOX. Well, I know, speaking again of Bethlehem, there were great complaints there of the interference of trucks. That was a very bad winter, with the snow piled up on the streets for three months, a year ago last winter, and between Bethlehem and Allentown there was a fine highway, but it was not cleared of snow and practically the only place where the trucks could go was on the street-car tracks, and if anything happened to one and it was blocked, then the cars were blocked.

Now, I think undoubtedly the street-cars should have the right of way, and that the municipality should cooperate in keeping things off the track so that the street-cars can get along.

I know there I recommended on Third Street, which leads up to the Steel Works, one of the things was that the city should clean the streets of snow and ice so that it would not be piled up there for three months and drive all vehicles onto the car tracks. That, I think, occurs; of course, it is only for a comparatively short time and only in some cities, but things like that certainly the cities ought to do. I think a good deal can be done in a good many communities that way.

Mr. WARREN. I have heard it was done in Cleveland, and it made a difference of—I do not know—I think 25 or 30 per cent in the speed of the cars which, of course, would make a very great difference in the expense of operation.

Mr. WILCOX. I do not know the details of that, but I know when Peter Witt was street railroad commissioner, he made a special point of cooperation and speeding up. The skip-stop plan was put in effect there, and if you want to get on a car in Cleveland you just have to hop. And as I remember the results the increase in the

average speed was about 2 miles an hour, from something over 8 to something over 10 miles, which of course is a good idea.

The CHAIRMAN. Have they kept up that pace?

Mr. WILCOX. I do not know, but I think they have very nearly, though. I might say that I think there is no doubt whatever that, of all the schemes that have been tried for a long enough time to show results in this country, the Cleveland plan has worked out better than any other. I speak now of the contracts with private ownership.

Commissioner MEEKER. Do you think the one-man car could be used in congested districts like New York City to advantage?

Mr. WILCOX. Well, I am not enough of an expert on the technical side to really have a judgment, except what other people tell me. I went out to Brooklyn and rode on a Birney car one night a few weeks ago, and I would not think that the car would be really adapted to the congested traffic of New York. I do not think it is really necessary to apply it there. But there are—oh, the proportion of street-railway service throughout the country to which the one-man car could be applied is—well, of course, I could merely guess at the percentage, but I would imagine that it could be applied to 60 or 75 per cent of the trackage of the country. That would not mean 60 or 75 per cent of the traffic.

The CHAIRMAN. Have you ever investigated to see as to the best manner of collecting and retaining fares?

Mr. WILCOX. Well, the conductors, some of them, have developed a method.

The CHAIRMAN. I do not want you to assume that I meant you have investigated it from that side.

Mr. WILCOX. No; I have not. The Public Service Railway in connection with its zoning plan has developed a plan which it thinks is pretty nearly thief-proof, but that phase of the case I have not gone into closely. It is a little beyond me, on the technical side.

Mr. WARREN. Do you know the Rook fare box? Have you studied that?

Mr. WILCOX. No. That is the one you hold in your hand; is it not?

Mr. WARREN. I think so. It is the one that caused the strike on the Eastern Massachusetts line for quite a time.

Mr. WILCOX. Because they have to reach in so far.

Mr. WARREN. Yes; they claimed it was dangerous.

Mr. WILCOX. I think they have that on the New York buses.

Mr. WARREN. They have it on the Providence lines, and have had for some years, I think.

Mr. WILCOX. I talked with one or two persons about that strike, and they were rather of the opinion that the men were to a certain extent justified on those open cars where they have to stand on the running board and reach in this way [indicating], and wait while they try to make change with the people on the far end of the seat.

The CHAIRMAN. Is municipal ownership the general rule in England?

Mr. WILCOX. Well, municipal ownership is the general rule in the large towns, and as I recollect, taking all the electric-railway enterprises together, the number of municipally owned enterprises is slightly in excess of the privately owned, but the weight, I should

say, would be at least 75 per cent, because practically all of the big towns, with the exception of Bristol, I think, and Dublin, and a great many medium-sized towns, have municipal trams.

The CHAIRMAN. Have you made a comparison of the results of operation between both systems in England?

Mr. WILCOX. I have not.

The CHAIRMAN. Then you do not know whether municipal ownership is an advantage over private ownership in that country?

Mr. WILCOX. Well, I think that the municipal policies, because of the predominance of the municipal lines, have sort of set the pace for the entire industry in England. It may not be. Perhaps it is just inherent in the British way of running things.

The CHAIRMAN. Do you know how fares compare between both systems there?

Mr. WILCOX. The fares, I think, are much the same, because they are limited by statute, as I recollect, to a maximum, I think, of a penny a mile—that is, 2 cents of our money.

The CHAIRMAN. There is evidence before us to show that the mileage in cities of the same population in this country is very greatly in excess of the car-mileage in England.

Mr. WILCOX. You mean the track-miles?

The CHAIRMAN. Yes; the track-miles. How do you explain that?

Mr. WILCOX. Well, I asked Mr. Jackson about that. That is one of the things that has always troubled me. And the only answer—well, there were two answers which may give a partial explanation: One is that the systems have invariably been built up as units without the competitive construction of lines, the duplication of lines which is still characteristic of a good many American cities. That the system was laid out for the purpose of providing the maximum amount of service with the least amount of trackage. Then the British cities, as a rule, are more compact than our cities. They have very little of the lines running beyond the city limits, except where, as I indicated earlier in the day, two cities lie against each other, and one city furnishes the service in the other. There is practically nothing, as I understand it, corresponding to our interurban lines, because England is gridironed with steam lines which take care of that service, and there has been no occasion, or at least if there has been occasion, it has not been developed, of building street interurban lines.

Now, if you were to take off all of this trackage on the outside of the built-up section of a city, and then if you would take out duplicate trackage built by reason of the fact that originally there were competing lines, our trackage would be very greatly reduced. I do not know how much it would be reduced, but it would be reduced a very great deal.

The CHAIRMAN. Would the fact that England is an old settled country and the villages and cities were established long before the street-railway systems were built, while in this country we are comparatively new and the villages and cities are expanding greatly, make any difference?

Mr. WILCOX. Well, I presume it would, to a certain extent. The older cities there, their characteristics were pretty well developed before the tramways came in; that is, they were closely built up and tramways were built to meet the needs of the population, while here,

in a great many cases, they are newer cities, and the street railways have been built up with the communities, and in some cases have gone considerably ahead of the community development.

The CHAIRMAN. You stated that in England it is the practice to amortize the investment in properties. Has that resulted in a decreased fare?

Mr. WILCOX. Well, of course, that would not result in a decreased fare until the process was complete, because—

The CHAIRMAN. It is complete in Scotland—Glasgow.

Mr. WILCOX. It is complete in one city. Glasgow is the only city I know of that has really completed it. In Liverpool it is nearly complete. The fares have been, while that process was going on, decreased from time to time, and the experience of Glasgow has been that with each decrease in fare, there has been an increase of revenues, until the point has now been reached, so I am informed—I am not very well informed on this particular point, because it is more recent—the question, on account of increasing expenses in Glasgow, the very greatly increased wages, recently has come up of getting a little more fare. I suppose they do not want to decrease the amount they contribute to the common good perhaps in taxes. But, at any rate, the question was raised how they should get the additional revenue, whether they should get it by lowering the fare; and poor Mr. Dalrymple said, “Deliver us, I can not carry any more passengers.” I do not know what was done. That was within the last two or three months that I saw some notice of it in the Electric Railway Journal. But there was some plan for readjusting the fares, and increasing them somewhat. Pretty nearly all the cities except Glasgow and Aberdeen and Leeds, I think, had increased the fares as the result of the war condition, so that the minimum was up to 1 penny, 2 cents, and in some cases they effected it by changing the stages, the length of the zones.

The CHAIRMAN. You stated that the substantial difference between the conditions in England and in this country was that over there they were operating for service and over here for profits, and that there was actually an overcapitalization and manipulation of stocks and bonds in this country, and there ought to be a housecleaning. How would you make that housecleaning?

Mr. WILCOX. That is a very hard thing. There have been, as you know, in our experience on some of the railroads a continuous series of receiverships, a few years apart, and the receiverships have not been confined to this period of war trouble, but there have been lots of them in other times. Now, unfortunately, a receivership does not necessarily solve the problem, because when property goes in the hands of a receiver, it is primarily with the thought of saving the property that it is managed, and it is like when the street railways get so hard up that they can think of nothing but more money; the emphasis on service and on the public's side of it is lost, to a certain extent, and through lack of jurisdiction of the commission in some cases the tendency to try to save as much as possible out of the wreckage has been permitted to leave the capitalization of the company still excessive after the reorganization. That is true of the receiverships that the New York companies went through a few years ago. Part of the present trouble of the surface lines is that they persisted

in overcapitalization contrary to the advice and attempted control of the public-service commission. Now, I do not know how a house-cleaning can be had except through receiverships, but I do not think that receiverships will do it unless you have a plan and are ready to put your plan into effect in connection with the reorganization.

The CHAIRMAN. Your first remedy is municipal ownership. That means the purchase of the property at a fair value and that fair value would eliminate water?

Mr. WILCOX. Yes.

The CHAIRMAN. That is your theory, is it not?

Mr. WILCOX. Yes.

The CHAIRMAN. Now, can not the problem be worked out under a system of private operation and private ownership as well, by having the State fix the value of these properties and then work out a system of regulation by which the State, or the municipality and the State working in cooperation, would establish a reasonable rate and have close control of the accounting system, of the expenditures, capital improvement, as well as maintenance, require correct reports, and very careful control over the service?

Mr. WILCOX. The difficulty that I have seen in the matter of determining or really getting a rock-bottom value, getting a permanent fixing of the investment as a basis which will stick, short of public ownership, is the fact that thus far we have not developed any satisfactory way, so far as I see, of really getting at that value, and forcing the issue except through the process of taking the property. In a rate case it is true the value of the property for rate purposes is fixed. Now it is also true that laws may be passed, and in fact, laws are in effect in some States so that in the reorganization of a property that has become bankrupt, the securities can be limited to actual value as found by the commission. But there is not any satisfactory way, so far as I can see, of determining for all purposes the value of the property short of determining it for the purpose of taking it. It may be that some plan can be worked out. I have not tried to work out or think out the kind of legislation that would be necessary for that purpose.

Now under—

The CHAIRMAN. Primarily the value fixed by the State would be for rate-making purposes; would it not?

Mr. WILCOX. Yes.

The CHAIRMAN. And the Interstate Commerce Commission has now been engaged for four years in valuing the railroads for rate-making purposes?

Mr. WILCOX. Primarily, yes.

The CHAIRMAN. It has announced its decision in five cases. Don't you think that the principles applied by the Government might reasonably be applied to street-railroad systems?

Mr. WILCOX. We made very good use of the decisions of the commission in the Texas Midland case in our testimony before the New Jersey Commission in trying to establish the principles of valuation which were very different and much more conservative than the principles which have been used by the company in its appraisal. But the company said, when this evidence was produced, "Well, has any court passed upon these principles?" "No; no court has passed upon them. The Interstate Commerce Commission has made these ap-

praisals; they are tentative; they are not being used for any particular thing." The companies have the idea they can not get them into court until they are applied to some particular thing; and it is only then, and we do not know when that will be, that the Supreme Court will really pass upon and establish the principles of valuation as they have been outlined by the Interstate Commerce Commission.

The CHAIRMAN. Of course that is going to be done sometime?

Mr. WILCOX. Yes.

The CHAIRMAN. And it may be done very soon?

Mr. WILCOX. Yes. Those principles in general can properly be applied to street railways.

The CHAIRMAN. Now, when those principles have been established by the Supreme Court, do you not think they can be applied to street-railway property generally?

Mr. WILCOX. Yes.

The CHAIRMAN. Then, the legal principles having been established, the question of values is merely one of fact?

Mr. WILCOX. Yes; primarily. Of course, the facts are complex.

The CHAIRMAN. Oh, I will concede that—

Mr. WILCOX. There is always a difference of opinion.

The CHAIRMAN. We have to rely upon human judgment in these matters.

Mr. WILCOX. Yes.

The CHAIRMAN. That being so, you can start off with a value for rate-making purposes which would be fair to the company and fair to the public?

Mr. WILCOX. Yes.

The CHAIRMAN. That being so, can not you build up a system of regulation which is going to be protective to all interests concerned and result in good service to the public?

Mr. WILCOX. You can not give the kind of security which is required by the service-at-cost plan or by the plan which I have suggested here, if you call it a plan, without a contractual relation which is not contemplated by the regulatory statutes, not contemplated by the general scheme of State regulation.

The CHAIRMAN. If you are going to have a cost-of-service plan, would it not be practicable to give that power in the State in cases where a corporation operates through more than one city or village?

Mr. WILCOX. The power of the State to make a contract?

The CHAIRMAN. Yes.

Mr. WILCOX. It would be possible to do that. I do not think that it would be advisable, merely because a street-railway company runs beyond the limits of the main city which it serves, to take away that city's power to participate in the settlement entirely. I think that that could properly be handled where necessary through a local district somewhat larger than the municipality, but where the system is a State system or practically a State system, of course, that power could be vested in a State commission the same as in a municipality. But it is contrary to the established plan of regulation. It means departure—

The CHAIRMAN. Municipal ownership may or may not be accepted by the American people. Your plan may be right. Do you think that it will come about very soon?

Mr. WILCOX. I think that the only question is as to whether it will be brought about right or whether it will be brought about in a wrong and blundering way. I think it is inevitable that within a comparatively short period of years the street railways of this country will drop into the public lap. I do not believe that under any scheme that we can devise we can put off indefinitely the assumption by the public of the responsibilities and the obligations of maintaining this service.

The CHAIRMAN. Having in mind the abnormal condition in which we now live, would you, as a street-railway expert and economist of note, advise municipalities to buy the properties at this time?

Mr. WILCOX. I would advise them to buy properties at this time if a proper and conservative plan can be and is worked out for the determination of the purchase price.

The CHAIRMAN. You have had some experience in that over in New Jersey. What do you think about the success of your plan?

Mr. WILCOX. Well, we have not finished, we have not got the decision of the commission in New Jersey.

The CHAIRMAN. But you do know there is a very radical difference of opinion between yourself, the commission, and the railroad company as to the value of the property?

Mr. WILCOX. I know that everywhere where valuations are made ex parte, eminent engineers succeed—after they get through the process of counting, on the one side, subtracting and dividing, and on the other side multiplying and adding—in getting values that are away apart and the process—

The CHAIRMAN. And no one knows to-day just how much credit the courts are finally going to give to the cost of reproduction less depreciation or to the abnormal prices which now exist, in working out that plan?

Mr. WILCOX. Yes; that is true.

The CHAIRMAN. Realizing the motive which prompted the appointment of this commission, have you any idea what form of recommendation it should make to the President?

Mr. WILCOX. I do not believe I could answer that question off-hand any better or any differently than I have answered it in my general testimony or statement of views. I do not think that the commission should recommend any plan which would have for its effect, if carried out, the diminution of the service which the street railway as a public utility must render to the cities. Therefore I do not think any recommendation which merely says these companies need more money; therefore, let every city and every State grant them increased rates when they ask for them, would be a proper recommendation. I do think that the commission ought to call attention to the fact that the troubles in which the street-railway industry finds itself are in part the result of old causes which still survive, and that in many cases it is not in the interest of the public or in the interest of investors to do something, anything, to prevent a receivership. Because in many cases a receivership is essential, the only method by which a reorganization to put the business in a particular community upon a sound financial basis can be effected.

Commissioner MEEKER. Are not receiverships rather expensive usually? Is it not a good deal like burning the barn in order to get rid of the rats?

Mr. WILCOX. Well, the receivers and their counsel profit by them. But I do not know any way—here you have in every property certain classes of financial interests. One is subordinated to another, and then to another; and there is not any way that you can get those interests together to agree voluntarily to compromise and give up the things which they think they have a right to.

Commissioner MEEKER. But following that up, you have indicated that receiverships have not resulted in diminishing overcapitalization. Oftentimes the result of receivership has been to crystallize water into firm rock of capitalization.

Mr. WILCOX. I would not like to have my statement overemphasized, or I would not want it to carry more than I intended it to carry. Generally, I should say, receivership results in some reduction of capitalization. But often, and perhaps generally, it does not result in a sufficient reduction of capitalization on the basis of what the experience and the industry and the facts of the particular case warrant.

Now, that limitation of the result of receivership can be gotten around in part by the control which is now exercised in some States, and could be exercised in all under particular authority by the State commissions in connection with reorganizations. In the case of New York, when the reorganizations took place 8 or 10 years ago, the commission attempted to control it, but the companies resisted it and went to the court of appeals and the court of appeals held that under the public-service law as it then existed the commission had no power over reorganizations.

Now it can also be in part controlled, and I think even more effectively, by the adoption in any community, in a State or in a city where a receivership is on of some kind of a permanent policy for the settlement of the street-railway difficulty. If you have a program and you say, "Now you can have so and so, you can have security for your investment, you can have a guaranteed return through a flexible fare or through subsidies or whatever may be necessary, if you will bring your capitalization down to bed rock," the receivership is an occasion which can be made use of to effect that. If you do not have any policy, if you just stand off and let it take its course and the public has no initiative and does not know what it wants to do, just lets them go through in the normal course, the result of a receivership may not be very important in the matter of reducing overcapitalization.

The CHAIRMAN. Will not the correct valuation and the establishment of a correct regulation policy have the same effect without the same cost?

Mr. WILCOX. The establishment of a correct valuation and correct regulation will not prevent receivership. It may precipitate it if the valuation that is made with the rate of return that is fixed is such that the company is not permitted to earn its fixed charges that have been assumed through rentals and bond issues, and so forth, in the past. Of course, that very process will force a receivership.

The CHAIRMAN. Would you advise this commission to recommend the elimination of street paving and special assessments and taxation in all cases where it was possible to do so to keep down rates?

Mr. WILCOX. I think that those things should be eliminated as an alternative to an increase in rates. I do think, however, as I said, that the obligations which have been put upon the companies or which the companies have assumed ought not to be just merely lifted without being, wherever practicable, made a part of the establishment of this fundamental fact, namely, the determination of what the value of that property is and the determination of a plan by which the property will be secured in the future and the service will be secured and a permanent policy worked out. If you just say, "Here, they are in distress. We will relieve them from all their obligations, we will give them everything and wait and work out a permanent policy afterwards," you will have the same old trouble over again.

The CHAIRMAN. Do you think one of the functions of this commission is to study the franchise plan and make a recommendation of some form of franchise containing certain general principles that can be applied?

Mr. WILCOX. Well, I am embarrassed in answering that question by the consideration which I called attention to, namely, that a franchise has become a scrap of paper in large measure, and we have got these conflicting things. The street-railway business can not be saved except through public ownership or contracts and—

The CHAIRMAN. Up to the present time these contracts have largely been a question of bargain and sale and agreement between the parties?

Mr. WILCOX. Yes.

The CHAIRMAN. In which case, generally speaking, the utility has possessed some advantage by reason of its superior knowledge and experience?

Mr. WILCOX. Yes.

The CHAIRMAN. If a Government commission should outline certain general principles which should be incorporated in a franchise, would not that be a considerable benefit to the community in working out these plans?

Mr. WILCOX. It undoubtedly would, if coupled with it was a recommendation of a change in the utility laws so that franchises granted and contracts entered into following those principles could be enforced.

The CHAIRMAN. Now, on the question of franchise, would you favor recommending an indeterminate permit with the right of the municipality to purchase as one of the principles?

Mr. WILCOX. I am in favor of the indeterminate permit, provided that the plan of amortization of capital out of earnings, if that again becomes possible, is taken care of. I do not favor an indeterminate—

The CHAIRMAN. On that point, why should there be any amortization of capital in the case of a franchise which has a continuous life?

Mr. WILCOX. Well, you see, I can not get away from my point of view. I can not get away from the deep-settled conviction which

I have formed a good many years ago—and everything I have seen since has confirmed it as far as I am concerned—I can not get away from the conviction that ultimately the ownership—at the very least, the ownership—of these utilities must be in the public, and if so it is of considerable importance that a policy should not be adopted which prevents a municipality from making a start through a contract with the company toward the purchase by degrees of the existing plant.

The CHAIRMAN. How can the city get the benefit of an amortization plan through a contract?

Mr. WILCOX. In two ways. The city can provide, as here in New York, with this famous contract, although the city gets the worst of it in certain respects, it gets this advantage: The companies under these contracts are putting \$175,000,000, maybe \$200,000,000, I am not familiar with the latest figures on the cost of their equipment, part into construction and part into the equipment of the subways. Now, those contracts provide that that investment shall be amortized out of the 6 per cent which the companies take out of the earnings and at the end of 50 years all that property theoretically maintained to a high standard of efficiency, becomes the property of the city without further cost, and the city may sweat a good deal in the meantime, maintaining its own investment, and the taxpayers may have to contribute a lot, but the fact will be, unless the contract is broken, when that time comes the subways will belong to the city without any further cost.

The CHAIRMAN. Then the cities can make a contract that the property shall be theirs at the end of a certain time?

Mr. WILCOX. Yes.

Commissioner BEALL. Does it not come down to this, Mr. Elmqvist: That it is just a rate of fare, instead of making a contract they make such a return as the company is entitled to, that it enables them to amortize; if they would rather have it in reduced fares, they can make it in a less contract? That is about what it comes down to.

Mr. WILCOX. Of course on an adjustable contract or an equitable contract something like that would have to be done, say it is 5 cents—

Commissioner BEALL. You would have to have a higher rate of fare if you were going to amortize the cost of your property. That stands to reason.

Mr. WILCOX. You will; but the difference is very slight. Six-tenths of 1 per cent running for 50 years at a comparatively conservative rate of interest compounded will wipe out an investment. Now, 0.6 of 1 per cent—that is, slightly over one-half of 1 per cent upon the investment. Now, the difference between the security of an investment, of the bonds secured by property, where the capital is reduced by amortization so that it is always well below the actual visible value that is there, under ordinary circumstances I think would be more than the cost of amortization.

The CHAIRMAN. Now, Doctor, if this commission should find that the patient is very sick and needs immediate help pending rehabilitation, what can we do?

Mr. WILCOX. Well, you know, no matter how much we disliked a person, how bad we may think he is, if his life is in danger, we for-

get all about his faults and rush to his rescue. A doctor is not supposed to inquire into the morals of the patient that is about to collapse, without help. I think, however, that using that figure of speech, you should apply it not to the companies, but to the industry. If you find that the patient—the industry—is very sick and is about to collapse and die, you are justified in doing almost anything to save it. But that does not mean that you are justified doing things that will hinder the proper ultimate solution of the problem, to save the present managements of the companies.

The CHAIRMAN. Now, I have just one or two more questions. As between a cost-of-service plan and regulations by commission, which do you favor?

Mr. WILCOX. I would very much prefer the proper service-at-cost plan, because I do not consider that the commission regulation gets anywhere along my line. Commission regulation assumes that the thing is permanently in private ownership and makes no provision for purchase price and makes no provision for anything of those things looking to what I consider the ultimate solution.

The CHAIRMAN. I understand what you think the ultimate solution ought to be, but I am trying to find out from you what you think the best solution is of the private operation, because that is also a question which we have got to consider because it is here.

Mr. WILCOX. Well, take the Montreal contract, which was prepared with a good deal of pains by the Montreal Commission, and especially two members of the commission who were made a special committee on the draft of the contract, who had before them the experience of the principal American cities that had tried these various systems; and, at the same time, the Montreal Commission was limited by the statute under which it was acting so that it could not provide what I think is essential in a service-at-cost plan, namely, a scheme by which public ownership can be undertaken and the company discharged, if it proves incorrigible, or if the city wants to do that, short of the end of the franchise period, in that case 35 years; but that plan, with that limitation, and also with the limitation of the fact that the commission did not have authority to fix the value of the property for ultimate purchase, but could only fix it for the rate of return during the continuance of the contract; with those limitations, the commission attempted to work out the best plan possible for enlisting a private company's interest in operating the street railways from the point of view of the public service; and, while the settlement has many faults, the valuation is too high, in my opinion, and those other limitations are very important, I think that there is a good deal in the Montreal plan that is worthy of study.

The CHAIRMAN. Do you think the principles there are satisfactory?

Mr. WILCOX. I think, in general, the correct principles are adopted, with these limitations I speak of.

The CHAIRMAN. Mr. Ogburn, will you see that the commission is provided with a copy of the Montreal contract?

Mr. OGBURN. Yes.

Commissioner BEALL. I can get that.

The CHAIRMAN. Just one other question, Doctor: You had some comment with respect to holding companies. Is there any menace

to the holding company in cases where the properties have been valued and there is the proper regulation and supervision of the property?

Mr. WILCOX. Is there any menace on account of the holding company?

The CHAIRMAN. Yes.

Mr. WILCOX. Theoretically there is none; but we find this situation: The holding company, as holder of the stock of the operating company, enters into certain obligations which legally are not binding upon the operating company, but which are effective because the stockholders of the operating company have agreed with somebody that they will not vote the stock for doing certain things; and therefore we have a hidden control. The operating company is no longer a free agent in the development of its policy in its responsibility to public regulation and various things; and so long as that is true you have a situation that is confused and baffling; because the regulatory authority, the city that is trying to negotiate with the company, can not get to a free agent. We had a case like that, of course, with the Interborough, where the Interborough Metropolitan Co. has pledged its stock—where the stock of the Interborough Rapid Transit Co. is pledged with the Inter-Met. bonds, as I understand it, and there is practically a guaranty of paying a certain dividend on the Interborough stock.

We had it in the Scranton case, where the holding company had made a certain agreement with its preferred stockholders as to what the Scranton Co. could do in the matter of issuing additional securities, and the commission sees nothing but the Scranton Co. If the commission wants to investigate, if the municipalities want to investigate, they are not permitted to look at the books of the holding company; they are not permitted to learn anything about it; and here is just this baffling situation where there is a hidden power which has agreed that this nominally free agent shall not do a particular thing. I do not think that is consistent with effective regulation.

Commissioner GADSDEN. Suppose it was an individual that held that stock: Would it not have the same effect? Suppose some one man owned it—owned a controlling interest—would you not have the same situation?

Mr. WILCOX. If one man owned it, and had pledged the stock, we would have a similar situation.

Commissioner GADSDEN. Exactly similar.

Mr. WILCOX. That is true.

Commissioner GADSDEN. You could not avoid that, could you?

Mr. WILCOX. You would have a similar situation.

Commissioner GADSDEN. Surely.

The CHAIRMAN. Is it your intention, Mr. Wilcox, to leave for New York to-night?

Mr. WILCOX. It is.

The CHAIRMAN. You have no objection to remaining on the stand a little after 10 o'clock?

Mr. WILCOX. I have not.

Commissioner SWEET. That will have to be made retroactive.

The CHAIRMAN. We are grateful to you for your willingness to accommodate us. I have no further questions. I have a lot of questions that I would like to ask you, but I will not.

Commissioner SWEET. I would like to ask you just two or three questions. I think maybe the subject has been covered so fully that you can answer them rather briefly, probably, because they will apply to some of the questions that you have already discussed. But I want to ask you some few things that are not perfectly clear to me. One thing refers to the matter of strikes.

You say you favor the unionization of railroad employees under certain conditions, but that you would in some way prevent strikes. Have you any definite plan to suggest as to how that could be carried out?

Mr. WILCOX. Well, two years ago or three years ago—1916—when the threatened strike of the brotherhoods was so prominent in the public mind—

Commissioner SWEET. Yes.

Mr. WILCOX. And scared the country; and we had strikes in New York, considerable work was done toward the development of definite plans for preventing strikes through a proper scheme of legislation.

That work never was carried through, because the war came on and it did not seem appropriate to press it.

Commissioner SWEET. Upon what principle could that be done?

Mr. WILCOX. You can not prevent an individual from resigning his job when the conditions of the work are no longer satisfactory or the conditions of employment, except that you can, of course, prevent a person from dropping a thing, unless he has sufficient reason, without warning; but you can not prevent and you could prevent the street-railway people if they did not like their jobs, did not like their position, and could not get their condition improved, from all going off and quitting and going to something else; but you can make it a penal offense for street-railway employees or the employees of any other essential industry to conspire, through concerted action, to resign and quit—that is not it—but to stop the works. They do not resign. They expect to go back. They have not quit their jobs. But to call a strike or to agree at a particular time that service shall stop. I do not think there would be any difficulty from the theoretical point of view in drafting a law that would be effective as far as that is concerned. But there are great difficulties from a practical point of view.

Commissioner SWEET. As to the enforcement of it?

Mr. WILCOX. Yes; and in getting the sentiment—

Commissioner SWEET. And proper evidence, perhaps.

Mr. WILCOX. I do not think there would be great difficulty in regard to that. You can not make a strike effective without sufficient publicity so that you can get the evidence to prove the strike.

For one thing, under a plan like that, if people quit work, they would not be employed any more. They would not have any standing. They would be gone if they quit. That is resignation. It is not merely trying to hold you up.

But the real difficulty is in getting a plan that will be recognized as effective in removing the legitimate cause of strikes, so that the public will feel and the men will feel that their interests have been

taken under the public wing and are not at the mercy of a private employer and will be properly protected.

Now, of course, they may not get what they want in a particular thing; but if a procedure is established by which, through their organized committees and the fullest publicity, the fullest hearing and investigation, and bringing everything to bear upon public opinion and upon the established authorities, the decision is against them finally, and they find that the conditions of work are intolerable, then I can not see any way but that they have to quit—not strike, but quit.

Commissioner SWEET. Would you have in the same legislation a provision for arbitration, or some other means of adjusting the trouble?

Mr. WILCOX. I certainly would. I would make that first.

Commissioner SWEET. And provide particularly that they must continue to work, and the transportation must proceed pending this investigation?

Mr. WILCOX. Yes.

Commissioner SWEET. Have you any idea that at the present time the people of the United States are prepared for or would favor municipal ownership of street railways?

Mr. WILCOX. Oh, yes.

Commissioner SWEET. Do you think that if it were submitted to a referendum vote in the United States that that would be the result?

Mr. WILCOX. I perhaps answered too readily. I think that the majority of people in almost every city of the United States favor, abstractly, municipal ownership, and if the issue were submitted to them, as a general proposition—the principle—they would vote for it.

The difficulty comes, however, in getting a sufficient public sentiment in favor of paying the price that is fixed in a particular case or approving the particular plan. In some cases you have to have two-thirds or 60 per cent to issue bonds, and in some cases the price, they think, is exorbitant; and you may have, as you have had in Detroit, the people vote repeatedly for public ownership, when they were voting on that issue abstractly, and then turn down the specific proposition submitted to them, because they did not think it was satisfactory.

I think, however, on the principle—I do not think there would be any serious doubt; I do not mean that every city would vote that way, but I think the great majority of the cities would.

Commissioner GADSDEN. That is on the principle that has frequently been exemplified throughout this country of people voting for prohibition and electing a wet governor, is it not?

Mr. WILCOX. Possibly so.

Mr. WARREN. And they do not like it when they get it.

Mr. WILCOX. There has been, I have no doubt, a considerable shifting in both directions of public sentiment as a result of the Government control of the railroads. There has been a pretty widespread reaction, certainly in large classes of the community, against Government control, on what, I think, is the basis of an inadequate experiment and inadequate evidence; but on the other hand there has

been a great shifting of a perhaps still larger class, perhaps lower down in the social scale, and that is ordinarily more or less voiceless through the ordinary channels of publicity, in favor of public ownership, I think.

Commissioner SWEET. That is a sort of socialistic idea to some extent?

Mr. WILCOX. Well—labor.

Commissioner SWEET. It is taught by socialists, is it not?

Mr. WILCOX. Oh, that is true; yes. It is, of course, a part of the socialists' plan; always has been.

Commissioner SWEET. But I did not have so much reference to a vote upon the abstract principle as I did upon a definite plan that would result in the kind of municipal ownership that you are advocating and that you believe in.

Mr. WILCOX. After I left Grand Rapids in 1906, I went to Detroit, and my principal work in Detroit was trying to get a constitutional convention that would, among other things, establish municipal home rule with respect to public utilities. The city of Detroit for many years prior to that time had been striving toward municipal ownership of the street railways.

Commissioner SWEET. Yes.

Mr. WILCOX. And it could not even get a chance to vote on the subject; could not get an amendment to the constitution submitted so that the people could vote on it.

I became, at that time, quite familiar with the Detroit situation.

Now, the fact is that since then two plans, specific, definite plans, have been submitted to a vote in Detroit—

Commissioner SWEET. And voted down?

Mr. WILCOX. Each of them required a 60 per cent vote.

Commissioner SWEET. And they did not even get a majority?

Mr. WILCOX. The first one got a majority, I think.

Commissioner SWEET. Did it?

Mr. WILCOX. I think so, but not 60 per cent. It was not a large majority. It was pretty nearly even. The first one was voted down. I looked into it, although I was not in Detroit; I looked into it and it was voted down. Of course the people who were opposed to municipal ownership on any terms were against it. Also the radical element, those who had led the fight for municipal ownership, and who wanted municipal ownership theoretically more than anything else, went against it, and the reason they had was that the price was not fixed in the contract and they were left to the tender mercies of the Wayne Circuit Court to determine what the value of the property should be.

I looked into the matter very carefully, and if I had been in Detroit at that time, and my opinion had not been changed by further light from being there, I would have given strong support to that settlement.

Now, time passed on, and this last spring another plan was submitted to Detroit, and if anything, I have become, every year that has gone by, a more convinced advocate of public ownership of street railways; but with the light I had, if I had been in Detroit this last spring, I would have voted against it, because, under the conditions that have arisen, it seemed to me that the price was

exorbitant—too much to assume, under the conditions that have arisen.

Commissioner SWEET. Is it not a fact that when a bond proposition is presented to the public and a vote is taken upon it, a great many people, even those who pay no taxes at all, have an idea that they are voting an incumbrance upon themselves, and on general principles oppose it? Is not the tendency rather to oppose than support a proposition of that kind?

Mr. WILCOX. It goes by streaks. In particular cities for a period of time every bonding proposition will be voted down, and then some chamber of commerce or somebody will get up a campaign for public improvements, and then any bonding proposition that is submitted will be voted through.

Commissioner SWEET. Do you recall how many times we tried in Grand Rapids to bond the city for a pure water supply, and it was voted down time and again? Do you remember that?

Mr. WILCOX. I do not remember the number of times.

Commissioner SWEET. Well, it was done several times. Of course, there was a private company there, the Grand Rapids Hydraulic Co., that either secretly or openly opposed it; but that situation would arise in most communities with the street railroads, would it not, in all probability, if they did not want to sell out?

Mr. WILCOX. Yes; there would be an influence of that kind.

Commissioner SWEET. There would be a tendency there to do what they could to prevent it; and the D. U. R. in Detroit has done that thing?

Mr. WILCOX. In the last campaign, I judge from what I heard, that they kept their hands off pretty well; at least the vice president of the corporation, reporting to his Montreal stockholders, was reported in the Montreal papers to have said that whichever way it went they were all right; that a very satisfactory price had been established, and if they took it, all right, and if they didn't take it, all right.

Commissioner SWEET. One factor, in discussing before the public, if a vote was to be taken upon the question, and probably one that would have a good deal of weight, it seems to me, would be the presentation of actual instances where a plan had been tried elsewhere; for instance, if you were conducting a campaign for municipal ownership, you would refer, as you have to us here to-day, to the experience of Great Britain, of the cities in England and Scotland?

Mr. WILCOX. Yes; I certainly also would refer to San Francisco.

Commissioner SWEET. Yes. Do you think that the experience of San Francisco, which has been very short, comparatively, and the experience of the cities of Great Britain would weigh as much in the public mind of the average American city as the experience of Cleveland?

Mr. WILCOX. Well, the experience of Cleveland would not weigh against public ownership. It would weigh as a better plan than the ordinary plan under private ownership.

Commissioner SWEET. The street-railroad system of Cleveland is not in the situation that the general street-railroad systems of the United States are.

Mr. WILCOX. That is true; yes.

Commissioner SWEET. And the people there, as I understand it, are quite well satisfied with their plan.

Mr. WILCOX. Well, this spring this question came up: Under the franchise, if the company comes within 15 years of the expiration of its franchise, the city loses control of service, and the company has the right to put in the highest fare in the schedule, irrespective of what the cost of service is. When they came up to the point where the municipality had got either to renew the franchise, extend it, or else lose those advantages, the mayor of Cleveland came out strongly for municipal ownership, and supported and had submitted a proposition to the council, and it failed of passage, as I remember it, as I was informed, by just an even vote.

Commissioner SWEET. That and a few other details, I think, have been found objectionable. My understanding is that Secretary Baker believes thoroughly that that is the best plan, with certain modifications. He does not say that the Cleveland plan is perfect.

Mr. WILCOX. Yes.

Commissioner SWEET. He thinks their experience would demand certain amendments, certain changes.

Mr. WILCOX. Yes.

Commissioner SWEET. But that with those changes it comes about as near the ideal plan as any that has been tried. Don't you think that this commission, without being as drastic as to go to the full extent of now recommending municipal ownership, might recommend a plan similar to the Cleveland plan, with these amendments, or such as we, from our best information, consider to be improvements upon that plan, and provide in it that the very thing you are recommending most strongly, that a valuation shall be made upon the property that would be as careful and as conservative as if it were made for the purpose of purchase; recommend that the legislation that would be required to enable the city to make the purchase, should all be prepared in advance, with the view ultimately to have the city take over that property at the valuation agreed upon, and in the meantime, let a private corporation carry it on, as is done in Cleveland, with these changes? Would not that possibly, if the private management, private control, were not entirely satisfactory, give the city an opportunity to take it, and one that it naturally would resort to without any great amount of friction or objection on the part of the people of the community? And would it not bring about the result, in case satisfactory results were not obtained under private control, rather better than to now attempt to at once jump right into municipal ownership?

Mr. WILCOX. Oh, well, I recognize perfectly that preparation for municipal ownership is not something that can be done overnight, excepting in isolated communities; that it is a matter, at the shortest, of years to get the obstacles, the legislative and constitutional and financial obstacles, cleared away so that it is practicable for the cities to take the street railways over. That is the long job.

In the meantime, the service has got to go on, and it has got to go on in most cases under private management.

Now, a complete program, such as you suggest, that does not put off the things that take a long time to get through, but makes them a part of a program which has a temporary or immediate object in

easing the situation in the meantime is, of course, a program that I could not oppose, and would have to support. It is the kind of a thing that is essential. You can not jump from here to a distant goal without traversing the road between.

Commissioner SWEET. I think that is all.

The CHAIRMAN. Doctor, we are very grateful for your most interesting and valuable testimony, and I trust we have not worn you out.

Mr. WILCOX. Not at all. It has been a great privilege to be here.

The CHAIRMAN. It is not the ordinary Washington experience to run witnesses from 10 o'clock in the morning until 10 o'clock at night.

Mr. WARREN. I should like to have asked you some questions; your statement was very interesting. However, I feel that I ought not to, and I will not.

Commissioner SWEET. I would be willing to sit 15 minutes longer to give Mr. Warren a chance to ask his questions.

Mr. WARREN. I do not think I ought to. I do not think they are very material. But the testimony was so interesting that I should like to have asked some questions.

Commission MEEKER. Would it not be better to recall Mr. Wilcox at a later period, if it is desirable to hear him further?

The CHAIRMAN. Would you be willing to come down here sometime, if we have hearings at some future time, Doctor?

Mr. WILCOX. To express a different view or simply more of it?

The CHAIRMAN. Of course, we would not expect you to express a different view, but if the commission desires to examine you on some of these questions later on, in view of other testimony that may be received, would you be willing to come down again?

Mr. WILCOX. I shall be glad to do so, if I can arrange it, and I have no doubt that I could. It might be necessary to fix a date somewhat to suit me.

The CHAIRMAN. Certainly.

(Whereupon, at 10.45 o'clock p. m., an adjournment was taken until to-morrow, August 14, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *August 14, 1919—10 a. m.*

Met pursuant to adjournment.

Present: Parties as before.

The CHAIRMAN. We are ready to proceed. Will you please go ahead, Mr. Nixon, and give your statement in your own way?

STATEMENT OF MR. LEWIS NIXON.

Mr. NIXON. You perfectly understand, of course, that there have been certain situations which have required practically all my time in the recent past, so that it has been impossible for me to prepare to any extent for this hearing.

The street-car situation in New York at present is an entangled one. We have about 60 operating companies, about 35 holding companies, and these are expressed in three great systems.

A part of the Interborough is in the hands of the receiver—the surface roads. The Brooklyn Rapid Transit in its entirety is in the hands of a receiver.

Those concerned in service have to consider not only a safe, dependable, and cheap service, but, in view of the fact that bankruptcies always lead to deterioration in extent of service, and in general running down of equipment, naturally the possibility of further bankruptcies or receiverships must engage the attention of the commission.

The United States Government has \$17,000,000 of the loan certificates of the Brooklyn Rapid Transit, out of a total of \$57,000,000. The securities are spread throughout the city, practically throughout the country. Large holdings are in the hands of the insurance companies, and in the savings banks. Consequently it is a matter of extreme importance that further bankruptcies shall be prevented.

Naturally, too, with the division of operation, methods of financing have been different. After the contract which gave the Brooklyn Rapid Transit large differentials, which I shall explain later, and a large income, very large dividends were declared.

The handling of the Interborough was along more conservative lines, and up to the 1st of this July they had a surplus which enabled them to pass the 1st of July without a receivership. I very much fear that they can not pass the end of the year. Naturally it has engaged the attention of all those who have to consider the railway situation in the city of New York to find some means of preventing further receiverships and bankruptcies, and to aid those already in bankruptcy.

The labor situation also confronts us in a menacing way. We have been able to bring about an adjustment of the labor difficulties of the Brooklyn Rapid Transit, and it may be of interest to you to know something of that.

The Brooklyn Rapid Transit, under the receiver, had refused to recognize the unions, but had among its employees a union. They dealt with the committee of this union, but Receiver Garrison refused to recognize the Amalgamated Association, saying they had but a meager of the total number of his men.

This union insisted upon a recognition and brought about a strike. The strike in a few days brought about intolerable conditions, and had to be adjusted.

At a meeting a basis of discussion was obtained by all the parties agreeing to submit all questions except the recognition of the union to arbitration. As the basis of the discussion, the receiver was asked to at least give the same measure of recognition to the Amalgamated Association union as was given to the Brotherhood of Locomotive Engineers, the smaller union, which took in some of his men, upon the understanding that they should show that they controlled, on midnight of the 8th, which was the day before this compromise was suggested, at least a majority of all the trades and occupations which would naturally come within the scope of membership of this association.

The determination of the 51 per cent, or excess of 50 per cent, was left to Federal Judge Julius M. Mayer, who has from the first endeavored to support the credit of these various transit companies, and who has used every effort that seems possible with his great office to conserve the interests and sustain the financial strength of all these various companies.

The division of the percentage was left to Judge Mayer and the commissioner of public service.

This has been done, and the matter has now gone to arbitration. The arbitration committee will consist of one member of the union, the receiver or some one to whom he delegates his powers, and a third person to be chosen by the consent of both.

We had hoped that the results of the Brooklyn Rapid Transit strike would be awaited before further troubles began. I am still hopeful, because the arbitration committee was accepted, not only for the immediate troubles but to cover future troubles, and all these matters will be taken up immediately.

That, in effect, was the general settlement.

The Brooklyn Rapid Transit was running behind to such an extent in its returns, and also the New York Railways, a subsidiary of the Interborough, that it was essential that some relief be given.

While no one, of course, can really definitely estimate the effect of any extra charge, there was an opportunity presented to study not only the cost of such extra charge upon the total number carried but to provide some measure of relief. In consequence the public-service commissioner took upon himself, clearly under the right which he is satisfied comes within his powers, to grant a 2-cent charge for transfers at all points in Brooklyn and on the New York railways that were not covered by particular franchise requirements to give free transfers.

The estimate is that this will provide about \$750,000 in Manhattan, and about \$1,250,000 in Brooklyn.

We are naturally awaiting the first month's report with great interest.

This charge has not been unpopular. The people have accepted it practically without complaint, realizing the absolute necessity of raising money if the service was to continue.

However, it is being vigorously contested by the city, and at the request of the city government a hearing was given, and under the conditions of the hearing they presented certain arguments. Their brief, which will be received in due time, has not reached the commission.

I expect the transfer system, as modified in this way, to continue, as it is most essential that it should continue.

We are now faced, as I say, with the necessity of forcing or bringing about some more return for the Interborough between now and the 1st of January, 1920, or we shall be faced with a very similar situation to that which confronts us with the Brooklyn Rapid Transit. How this is to be brought about has not as yet been determined.

The contracts are clear that a continuous ride shall be made for 5 cents. To just what extent power may be given to modify this charge, by decisions of the Supreme Court, has not yet been determined.

That there must be, if we are to escape the consequence of further receiverships, a modification in charges for traffic which will bring about a further return, is unquestioned.

The great system of New York, with its transfers, has taken a number of years to reach a high state of efficiency, and it was with extreme regret that the transfer charge was put into effect.

The general desire of the commission is that a modification of existing contracts shall be brought about, both sides making con-

cessions. It is true that the various contracts as made, or particularly the dual contracts, so-called, were strongly criticised. To go into all the details as to the need of money at that time, as to the power of the city to supply it, and as to the risk and obligations of those who supplied practically \$160,000,000, would take entirely too long, and is pretty well known to the general public, as it is now. Suffice it to say, these contracts have been bitterly criticised as being entirely unfair, especially in what is called the differentials. The differentials represented, in the case of the Interborough, the average receipts for 1910 and 1911 on the elevated roads, and these were fixed as a definite charge which had to be paid from returns to them.

In the case of the Interborough it amounted to about \$6,335,000.

In the case of the Brooklyn Rapid Transit, \$3,500,000, not based upon actual figures, but upon prospective profits in some measure.

These preferentials, of course, together with taxes, maintenance, and the various other charges which are associated with all transit companies, are paid before the city of New York, which will in the end put in over \$230,000,000, is able to get any return upon its investment.

Whether these contracts do represent exorbitant charges can not be passed upon by the commission, as the contract was made with the city government, and they are the ones who must modify it, if it is modified, unless it is decided that the commission has the right to modify fares.

In considering the question, my first thought, of course, was that if there were a modification it was essential that the charges of the interest upon the bonds of the city of New York should be advanced, in a measure. This necessarily would be by subordinating some of the charges, which now go first to the operating companies.

According to the comptroller of the city, the city of New York is near its debt limit; so much so that there was a doubt in his mind, officially expressed, as to whether even enough money could be raised in the early future to complete the subways. Hence, if we could release large or small blocks of these bonds, by modification, we would then make these bonds self-supporting and automatically take them out of the debt limit, and enable the city to complete this beyond question.

As to the earnings of this great system which, when completed, according to present plans, will cover 636 miles of single track—equal in the aggregate to Chicago, Paris, and London; and Hamburg, Berlin, Boston, and Philadelphia, in the aggregate, amount to only one-quarter of this—I am very hopeful.

In some cases in Brooklyn bodies of passengers are handled even three times to get them to Manhattan. You will understand that the transit systems of New York bring passengers from all quarters of this greater city into a space of activity practically extending from Fifty-ninth Street to the Battery, which is one-fortieth of the total area of the city. Here you will find the amusements, the nerve center of manufacturing and commercial activity, and to this great center a great traffic is carried six days in the week. We have been carrying on the average about 2,000,000,000, the gross receipts of which, as you will see, will be \$100,000,000.

The normal increase in New York has been about 80,000,000 a year. As soon as the influence of the war became effective this fell

down to about 40,000,000, and in 1918 was 20,000,000 less than it was in 1917.

This great increase in traffic is surging back; and we must understand that we have to take care of it—not only the volume of traffic that we had at the beginning of the war, but we must make up for the loss due to the war and also take care of an even greater normal increase.

When all the connecting links are supplied, so that the plan of operation of this great system can be brought into effective work, I look to see an even less charge than the one which is now discussed.

Of course, if a man has been receiving a certain wage, and the standard of living increases enormously, if he must continue at that wage we can expect a reduction in his standard of living. In a similar way, if we have been expecting to get service at 5 cents, if it must be continued, there will be depreciation of service.

This matter of a solution of this problem can not be arrived at without great opposition. The city government is committed to municipal ownership. Frankly, my conception of the problem is that in the fullness of time municipal ownership will come. I think it will be caused by the fact that in a great city like New York it is impossible to face the consequences of only one tribunal to which the employees can appeal for the settlement of differences or the adjustment of grievances; that is, the instrument of a strike; and that must be stopped and subjected to some form of arbitration which is unquestionably in the hands of the public generally.

At the present time we should require enabling acts of the legislature to bring about municipal ownership. It may be that some method of ownership by the public, with municipal operation, shall come. With this there must come a clear conception of the fact that experts in this line can not be subjected to the possibilities of change or the limitations as now exist in the civil service.

The handling of these great systems requires men of great attainment. Throughout this country, when men of capacity and ability in this line have shown such ability, they have been brought to New York; and it naturally follows that the accident of political appointment can not take the place of such selective choice of ability throughout the Nation.

The city of New York is close to its debt limit, and, of course, could not furnish the \$600,000,000 or \$800,000,000 that would be necessary to purchase these lines.

We have no method at present for the condemnation of land, outside of that taken for water purposes, that will clearly meet the needs of these conditions, and the fact that franchise rights might be considered as property would probably make it extremely difficult for any power at the present time to take over these properties and pay for them, even if the money were forthcoming.

Hence it will be a subject for the wisest consideration by the legislature, and the means and methods of condemnation of such properties have got to be set forth in such a way as to make our course perfectly clear in doing so.

Some cities, of course, have issued bonds for such utilities, based upon the property itself, such property in operation to revert to the owners of the securities underlying in case of default. Others

have been based upon the gross earnings for security. In any event this, as you see, will require new legislation.

The city government has said that the clear-cut contract was made through which these various companies agreed to furnish service at 5 cents with universal transfers; that if they find they can not do this they should retire from the operation and turn the whole thing over to the city, and that the city should then run it.

I imagine that if the companies themselves were willing to do this those who have got real money in these great properties, represented by bond holdings, would ask for receiverships; so that any such voluntary relinquishment is impossible at the present time, and is not a subject for discussion.

I had a plan, which I gave to the press; and to save time I brought along the clipping as to the means by which I think this matter should be adjusted.

Perpetual franchises, giving control of the roads, naturally bar an adjustment. So in any and all plans there should be a relinquishment of the perpetual franchise, and this should be replaced by term franchises, or ones that can be terminated at such time and under such conditions as the city might desire.

There is another question which has given great concern in New York, and that is the leases underlying many of these contracts. You will understand that if you faced a situation where a committee to-day would have to determine as to price, the people who might be willing to accept this price might find that their underlying obligations were greater than the price they might be willing to accept. Take the case of Eighth Avenue: There a lease amount of \$215,000 a year was paid. It is perfectly true that the New York Railways Co. promptly put in a number of millions to bring this system to efficient operation, so that the charge that these leases were most exorbitant and that they represented, on \$1,000,000 capitalization, an income of 21½ per cent, was not exactly a fair one. But yet, in face of direct statements from the commission, as represented by myself, that the leases were not even being paid, this was still used as an argument before the general public. But in any event the leases must be modified, and I am hoping that there will be in all States, as I see the necessity so clearly here, and power given to the regulatory commission or whoever does have the power within the State, even if it is the legislature, to say what a fair amount is for leases of this sort.

There must be another consideration of great importance. I have told you that one great company was saving and that the other dispersed its returns in the form of dividends. I feel that there must be also some power in the regulatory commission which will limit the amount to be distributed in the form of dividends upon public service stocks and force in that way a surplus which will take care of the rainy day as far as possible.

No definite and positive and unquestioned valuation is in existence of the various properties in New York City. This should have been made and will be made. Then any adjustment, if we had such a valuation, could be proceeded with clearly and surely to a fair and equitable solution of the many questions which will be involved in any reorganization or any amendment of existing contracts.

Now, as to the fare: New York City has suffered extreme congestion in the past on account of the facilities for travel presented. You all know that in a city where you have no means of carrying the public at a low rate and people have to walk you probably expect the limitation of that city to be about 4 miles from any central point of activity, and with horse transportation from 7 to 8 miles. Because what I am looking at now is that there seems to be an upper limit of development based upon the fact that to your place of activity you should not exceed an hour's travel. I think you will find that you can use that as an axiom or basis upon which to place many of your general conclusions.

We now carry men 20 miles and over for 5 cents. I need not tell you what the railroads of this country charge for that. It means that we must conserve the short haul in order to take care of this long haul and prevent congestion developing in the city throughout its entire area.

So rapid have been the improvements in transit that it may be that the present outskirts of the city of New York will represent that area of dense activity and that the inventive genius of this country will bring even to the center which those people seek great outlying areas much farther than any that now are in contemplation. Probably this is in the minds of those who have put money into such systems. They may have to conclude that within a reasonable time they must clear off their investment on account of the wonderful development which we are now facing. I have nothing in particular in mind, although I have considered it as to how this will be brought about. But I do say that New York, no matter how fast it builds or develops its present facilities, will find itself overwhelmed and that within the engineering capacity of this country we have not the power to even keep up with the demands which are now forced upon us.

Now, as to the flexible fare. I think that if a flexible fare were adopted under the proper conditions with a give-and-take feeling on the part of the traction companies and of city government within three or four years with universal free transfers we should be able to sell tickets in bunches, say, 12 for 50 cents and possibly even lower. At present with these connecting links completed, if present conditions prevail, we are unable to look forward to any reduction below the 5-cent fare.

I put this clearly as it struck me in this statement I refer to, and I say "a flexible fare should be established whereby fares should be automatically adjusted to meet the cost of service, together with a reasonable return both to city and investors upon the agreed fixed valuations and upon the cost of additions, extensions, and improvements, the variation in fare to be secured merely by maximum and minimum limitations in a surplus fund, the operation of which shall be so simple that it can be taught to and understood by the pupils of our public schools."

No one who has looked at this problem can have other than the greatest admiration for the genius of the men who evolved the Cleveland system of charging for transportation. I thought that, in making this modification, the city should have a representative upon all the boards of directors.

These were in general the points that I had in mind, outside of a limitation of the power to declare dividends and the power of some regulatory body to see that leases or mortgages or compensations were not given for lines to be taken into these systems at exorbitant prices.

The other day I was faced with a situation of three lines being abandoned by the Third Avenue Railroad Co., which held them; the Twenty-eighth and Twenty-ninth Street line, the Pelham Bay line, and the Third Avenue Bridge line. They presented evidence on the fact that all of the railroads were running behind and said that they saw no means by which they could get further money to make up the deficit, the holding company having been given this money to carry them along. While the determination of the bridge abandonment is not just clear as yet, I can not see a way to prevent the abandonment of these lines. And I called the attention of the city government to the fact that here were lines which were abandoned because they could not keep up operation at a 5-cent fare. This suggestion that the city government might run them itself was rejected.

There are certain situations to which I wish to call your attention in the Interborough—a condition as now existing and which is sweeping along toward a crisis. They took over the elevated lines with the understanding that among their payments should be an amount of \$1,500,000 of net profits, together with a certain amount of fixed charges. There are no net profits now and no fixed charges, and in looking through the multiplicity of conditions affecting the line it seems that here is probably the straw which will break the camel's back. Of course, the preferential, unless modified, represents their great return, and if they were to abandon this Manhattan Railway Co. rather than lose their preferential under contract 3, we should find ourselves faced with the most complex problem.

That, in general, was all that I was going to say, and I have really gone a little further than I expected under the 15 minutes I think I was to have, but I am now at your disposal for any questions you may wish to ask.

The CHAIRMAN. Commissioner Nixon, there are three railway systems in New York?

Mr. NIXON. Yes.

The CHAIRMAN. Are all of them in financial difficulties?

Mr. NIXON. Well, the Third Avenue seems to be getting along very nicely, but—

The CHAIRMAN. That is a surface line?

Mr. NIXON. That is a surface line running up on the east side of the city and passing over into the rest of the streets, but the Interborough and the Brooklyn Rapid Transit in a sense are affected, because the Interborough has its New York Railways system under a receiver's hands—Job Hedges, receiver—and the Brooklyn Rapid Transit has all its system under a receiver, under Judge Garrison. There are complaints constantly coming in from all directions and requests for aid.

The CHAIRMAN. What is the prime reason for the financial difficulties of those companies?

Mr. NIXON. The increase in cost of labor and material. Of course, that includes fuel.

The CHAIRMAN. Would you be able to relieve them of their difficulties if they were operated under a flexible fare?

Mr. NIXON. Absolutely.

The CHAIRMAN. Then the real trouble with New York is the franchise fare?

Mr. NIXON. Yes; certainly—the constitutional franchise fare.

The CHAIRMAN. In your judgment, would you be able to operate all of those systems on a 5-cent fare under the present conditions if they were consolidated?

Mr. NIXON. At the present?

The CHAIRMAN. Yes.

Mr. NIXON. No.

The CHAIRMAN. So there is no possible economy in operation or consolidation that can permit the operation of those systems now on a 5-cent fare?

Mr. NIXON. No; consolidation would simply save possibly a few large salaries, but which, compared with one hundred millions of income, would be trifles. You see, the gross return upon investment in New York is one-third of what it is in Cleveland, for example.

The CHAIRMAN. Are there not large sums paid out in rental to these leased lines?

Mr. NIXON. Absolutely; yes.

The CHAIRMAN. Could not that be eliminated if you had a consolidation?

Mr. NIXON. Yes; that is the idea of having the consolidation, to save in every direction. And where these leases, as I say, are exorbitant, if there is a means brought about to cancel them and then somebody representing the legislature of the State has the power to say, "This is an exorbitant lease and should be upon the valuations which we have established," and establish it to the satisfaction of all—if it is exorbitant it must be cut down to some reasonable figure—there would be a large saving in that, but not a saving which would save the situation.

The CHAIRMAN. What is the total amount paid out in leases?

Mr. NIXON. I do not remember.

The CHAIRMAN. Is it a very substantial figure?

Mr. NIXON. It is quite a substantial figure.

The CHAIRMAN. Is there a public sentiment in New York for the consolidation of these systems?

Mr. NIXON. How is that?

The CHAIRMAN. Is there a public sentiment in New York for the consolidation of these systems?

Mr. NIXON. I should say not.

The CHAIRMAN. Is it possible to have a 5-cent fare on one system and a higher fare on another?

Mr. NIXON. That is very much to be objected to. It would drive traffic from one line to another. Of course, if we had one great owning company to deal with, where the elevated and subways, which we call the rapid-transit lines and which are the great trunk lines of travel and to which the various street railways are feeders, we would then strike the ideal solution of the whole question. Naturally, there are a great many conditions growing out of franchises that have existed for years which were obtained at a time

when they had to be obtained probably for money, and these have continued, these have been thrown into other systems. I tell you, there are 60 different companies—that is, in round figures—with about 35 operating companies, and all of these in general are controlled by 3 great companies.

There is much to be uncovered; there is much to be disclosed; and of course we have absolute records; they are all public—these leases and everything of that sort—there is nothing hidden in this general situation, because the records that I found in going into the public-service commission were most full. The only criticism that I have is that there should have been made years ago an absolutely definite valuation or appraisal which could be added to or corrected from time to time, so that every man that had to do with or assume the responsibility of exercising his own judgment in public questions could have a definite basis upon which to act.

The CHAIRMAN. Have any steps been taken to perfect such valuations?

Mr. NIXON. Oh, yes; we are going ahead with them.

The CHAIRMAN. On all lines?

Mr. NIXON. No; the receiver is making a very thorough appraisal. But after he makes his appraisal it then must be criticized by the city government. What I would like to see brought about and what I hope to see as a recommendation in the very near future is a board made up of members of unquestioned ability, such members being appointed by those interests that might be antagonistic as to the general findings or the result of findings, so that when we did get an appraisal it should be unquestioned.

The CHAIRMAN. Is there any governmental authority at this time that can prescribe a valuation for those systems subject to an appeal to the courts?

Mr. NIXON. I imagine that the public-service commission has the right to make such an appraisal and I am examining as to my right, but I know I have not any money.

The CHAIRMAN. That is necessary when you make a valuation. Are you suffering from jitney competition?

Mr. NIXON. The jitney competition was the savior of a crucial situation during the strike. I suppose you might say that in round figures the jitney competition, so-called, would amount to about \$12,000,000 loss to the transportation systems of the city of New York.

The CHAIRMAN. Do you include the Fifth Avenue buses in your term "jitney competition"?

Mr. NIXON. No; the Fifth Avenue buses are part of the transportation system.

The CHAIRMAN. What is the total transportation earnings of the bus system?

Mr. NIXON. I can not tell you. I have not brought any of those figures. If you will write me any questions I will be glad to furnish such figures. I did not burden my mind with them, and frankly, I did not have time in the last 10 days in which I expected to get you some data which you had asked for, but I will be glad to furnish anything you desire. They are allowed to charge 10 cents.

The CHAIRMAN. The bus system has extended very rapidly in New York?

Mr. NIXON. Yes.

The CHAIRMAN. Is it having a positive or substantial effect upon the revenue of the transit lines?

Mr. NIXON. I do not think so; because the volume of traffic is so great, the demands upon all systems of transportation are overwhelming except in the outlying places or in places like the Twenty-eighth and Twenty-ninth Street line or lines out in Queens, for instance, that run along a rapid-transit line and parallel it at close distances. They naturally fall off in their earnings.

The CHAIRMAN. Has the War Labor Board fixed the wages for any of your systems?

Mr. NIXON. Yes.

The CHAIRMAN. The recent strike involved an application for increase wage as well as for the recognition of the union?

Mr. NIXON. Recognition of the union, reduction to eight hours, and they asked for such employees as were covered by the Amalgamated Association 75 cents an hour.

The CHAIRMAN. Was any adjustment on the wage made?

Mr. NIXON. Not as yet. They are about up to 49 cents on the Interborough, starting at 41, and taking 10 years to get up to 49 cents.

The CHAIRMAN. How much money—

Mr. NIXON. By the way, it is public now I think. Just before I left, the Interborough had issued a statement to the effect that it was going to give all of its employees 10 per cent increase.

Commissioner GADSDEN. And what will that make their maximum?

Mr. NIXON. Well, they were 49; that would be about 54. It is 51, I think, in the Jersey City agreement. There is an agreement, I think, between the Public Service Corporation there and the Amalgamated Association that they shall have 51 cents, but—

The CHAIRMAN. How much was involved in the wage application?

Mr. NIXON. Judge Garrison told me it amounted to about \$13,000,000, but half of it, I stated publicly and made a very rapid mental calculation—half of what they asked would have amounted to over \$5,000,000.

The CHAIRMAN. Adding \$5,000,000 to the wage count would necessitate an increase in fares?

Mr. NIXON. Increase of fares are not paying the men, not maintaining the equipment as it should be. And the equipment throughout the city is deteriorating rapidly. I am faced by that situation.

The CHAIRMAN. What fare would you have to have if you added \$5,000,000 to the labor cost?

Mr. NIXON. I think within two months' operation of this transfer charge I can establish that fairly definitely. At present I have not the slightest idea.

The CHAIRMAN. You have not a guess now?

Mr. NIXON. I do not want to guess on these matters.

The CHAIRMAN. Speaking of transfers, and applying your statement particularly to New York, do you believe that the transfer system should or should not be recognized in New York City?

Mr. NIXON. The transfer system should be universal in application and free in New York City.

The CHAIRMAN. Is there a transfer between separate systems?

Mr. NIXON. No; and I have not any right to order a transfer on the same system between an elevated and a surface line, but I look to see——

The CHAIRMAN. What is the longest haul on a line in your city?

Mr. NIXON. Something in excess of 21 miles.

The CHAIRMAN. And do you believe that the divisions in New York require a flat charge for anyone traveling the whole distance?

Mr. NIXON. The zone system has been given a very great study and much has been predicated upon the fact that these contracts were made and that passengers should be taken on continuous rides with universal free transfers as far as possible on the system covered by the lines at a flat charge of 5 cents. Our congestion there is terrific.

If we can bring a man to his work from outlying districts where he can live under better conditions for himself and his family, of course, it is a situation that we must arrive at if possible. We haul the man that long distance at the expense of the man that travels the short distance. But even with that, while theory seems to point to the fact that the zone system is the most equitable, we hope that we shall, as we complete our systems, be able to realize the great desire of all of this city to have a continuous ride with free transfers at 5 cents. We can not do it now.

The CHAIRMAN. Is there any city in the country which has a greater congestion?

Mr. NIXON. I think not.

The CHAIRMAN. Do you believe that a zone system properly established would tend to eliminate that congestion and spread your population and your industries over a wider territory?

Mr. NIXON. Well, if a man has to pay 10 cents a day for to live in the outside districts, that 60 cents might have a very compelling effect upon the location of his residence and he would get just as close to his job as he possibly could if it cost him more to go somewhere else.

The CHAIRMAN. Would that be a good thing or not for New York?

Mr. NIXON. To have further congestion?

The CHAIRMAN. No; less congestion.

Mr. NIXON. Unquestionably.

The CHAIRMAN. And decentralize your industries?

Mr. NIXON. We wish to.

The CHAIRMAN. Is there anything that would cause that quicker than a proper zone system?

Mr. NIXON. A proper zone system, as I told you—theoretically, from all the points of view of finance and seemingly of common sense—the zone system is the equitable and proper way to impose fares. At the same time I hope to see the 5-cent fare maintained.

The CHAIRMAN. Evidently you believe that, after normal conditions have been resumed, you will be able to carry passengers for even less than 5 cents?

Mr. NIXON. I do, absolutely.

The CHAIRMAN. What leads you to reach that conclusion?

Mr. NIXON. By a careful examination of the costs of transportation throughout the city and the fact of the advantages which will

come with the completion of this great system that has been outlined which, as I tell you, in its inception had to provide for bringing people from 315 square miles of territory into a city of tremendous activity practically covered by 8 square miles, and that all had to pass through that. There is some little competition in the situation. But, as it is developed, provided there will be no competition, and provided each was charged the same amount, and a man by no cut across could save any particular money in getting to his home, the 5-cent fare, on account of the vast volume, the normal increase of earning which comes from the continuous operation of a road, which you railroad men recognize, as the points of difficulty of transfer and so forth are eased up, as there becomes a smoothness in the travel, as the development of certain lines of activity are decentralized to a certain extent and men know just where they have to go for certain lines of work, I believe that the constant increase of earnings will come into play in a greater and greater measure.

The CHAIRMAN. Is there any law which would now permit any governmental authority to reduce the fares below 5 cents if conditions warranted it?

Mr. NIXON. No; not with the existing contracts. We refused to raise the fare the other day on that Dry Dock road, running from Brooklyn down to the dry docks, from 3 to 4 cents.

The CHAIRMAN. Do you believe that jitney competition will remain in New York City?

Mr. NIXON. Well, the streets are pretty well congested now, and that congestion is growing to such an extent that no one can tell what will happen in five years from now. The time taken to go from one point to another is, in a sense, beyond reason. How it is to be solved no one at the present time can tell. For instance, take Sixth Avenue: If you ride up there, with the pillars practically right in the line of drive on all that road—now, it will cost many thousands and probably millions of dollars to move all those posts out to the side, but they have got to be moved because there is an up-and-down artery of travel which must be improved, if there is a possibility—and there is a possibility there. And the same thing is true over on Third Avenue. There are many things that can be done to help in this tremendous congestion, but the increase of jitneys will—I do not see any particular objection to having them if they can help solve the problem. I think the problem is so compelling and overwhelming at the present time, or certainly in the near future, that every aid will be brought into play.

The CHAIRMAN. Your great problem is to get people moved there.

Mr. NIXON. That is the great problem in New York to-day, and it is becoming worse every day.

The CHAIRMAN. Do you think that the expansion of the jitney competition will seriously menace the operation of your transit systems?

Mr. NIXON. No; I think at the present time, to give you an idea of the competition—I should say it amounts to about \$12,000,000 a year that they take in which otherwise would go to the transit systems; and while it is a vast sum of money it does not injure the others, because they are going to do in a little while all they can possibly anyway.

The CHAIRMAN. You expressed the hope that some contract or law could be worked out by which the city could ultimately own and operate these plants subject to the provision that the employees could not strike.

Mr. NIXON. I think that a tribunal to which men can apply, whose findings they must accept, because it is of the people, will be of great compelling force—that will bring about municipal ownership or municipal control, even with its many handicaps as they now exist; but I think that with wise laws, carefully drawn, calling a spade a spade and recognizing the real dangers and not being afraid to say what they are, will remove these conditions. But conditions at the present time are such that it is impossible to bring that about.

The CHAIRMAN. You recognize that conditions in the labor world to-day are such that they insist upon the right to strike even as against government operation and ownership.

Mr. NIXON. I believe the labor organizations are reasonable and that they will not take the position that if there is a possible public service—I want to distinctly bring about a recognition of the fact that in operations such as those of the street railways, there is a quasi-public service, whether they are operated by holding corporations or whether they are operated by the government, and that in coming into those, if we are to have collective bargaining, I am hopeful enough of the general common sense of the laboring men of the United States to realize that they will enter into such contracts with an understanding that they are going to keep the contracts.

The CHAIRMAN. Do you believe that the Cleveland plan would be fair for New York City?

Mr. NIXON. With some modifications. I have studied the Cleveland plan now for three months and—

The CHAIRMAN. What modification would you suggest?

Mr. NIXON. Well, there is the question of the surplus and its distribution. Of course, we must have some point in a surplus where at the top the existing fare is reduced, and at the bottom where it is increased; but I am not prepared to tell you to just what extent it would have to be modified. You see it is a document which runs for a good many pages. But in principle it is the most hopeful and most equitable and clear solution of this problem which I have been able to see, and it would enable any city to return to the conditions that it has now if conditions warrant.

I believe we have arrived at a new level of prices for wage and material, and I do not look forward to any great reduction in the present costs of operation.

The CHAIRMAN. You have said you have to have the same fare on all systems in New York.

Mr. NIXON. We have not. We charge on the buses 10 cents, and they are filled with people all the time.

The CHAIRMAN. But I am speaking now of the transit systems.

Mr. NIXON. Yes; the rapid-transit systems.

The CHAIRMAN. Yes.

Mr. NIXON. The buses are not going to be rapid-transit lines, and the more people they have to carry the slower they will go.

The CHAIRMAN. But you have to have it on your transit systems?

Mr. NIXON. Yes.

The CHAIRMAN. If you had the Cleveland plan applied to your rapid-transit systems, might you not find on one system the 5-cent fare and on another the 6-cent fare and on another a 4-cent fare?

Mr. NIXON. No.

The CHAIRMAN. Providing what they were able to show as earnings?

Mr. NIXON. I would make it on the general working of the whole system.

The CHAIRMAN. Then, under the Cleveland plan there must be a consolidation of all your systems?

Mr. NIXON. A consolidation of all the transit systems in New York will come just as a matter of ordinary common sense. It may work hardships to some of them and some may be benefited more than others. That is a question for the city government to determine to what extent it will go in that. But I would hope that a recognition of the fact that, in order to avoid just the situation which you speak of, they clearly recognize that there should be such understanding of the whole system that will enable everybody to pull together and try to bring about one corporation by which we can handle it, unless the city gets the operation itself.

The CHAIRMAN. Are you hopeful that that sort of situation can be brought about in New York?

Mr. NIXON. I am absolutely hopeful it can be brought about without delay.

The CHAIRMAN. How soon?

Mr. NIXON. You can ask Mr. Burr how long it will take him to consider and modify these contracts. I think the whole thing could be done in three months with the knowledge we now have, provided we can have appraisals, which we have not had made, and which should have been made long ago, and correct up to date, so that every morning almost we could look in our books and find the value of every part of these systems. But we have not it, and I have not any power to control it. I would order it now if I had the money, but I have not the money. And that, of course, is essential in case we are to have a general readjustment, because we could not then ascribe or determine the degree to which the various interests should be considered.

The CHAIRMAN. Now, there seems to be a conflict between you and the city administration. The administration is for government ownership and you are for cost-of-service plan?

Mr. NIXON. I say in the fullness of time government ownership must come, but at the present time it is impossible.

The CHAIRMAN. Then your suggestion of the Cleveland plan or some such cost-of-service plan is not made with any hostility to ultimate government ownership?

Mr. NIXON. Absolutely not. I am not hostile to the city government.

Commissioner MEEKER. Have you explained in your previous testimony why you think that municipal ownership is impossible at this time?

Mr. NIXON. Because—yes; I think I explained that.

Commissioner MEEKER. I will not ask you to repeat it then.

Mr. NIXON. And also that I thought in the fullness of time it had to come.

The CHAIRMAN. Do you have paving requirements in New York City?

Mr. NIXON. Paving requirements and certain forms of taxation should be done away with. The old idea of paving between the tracks was when we had horses with iron shoes, naturally, and they extended their hurtful influence outside of the tracks—and we required them to pave a certain part outside of the track as well, 2 feet, I think.

The CHAIRMAN. Are you permitted to do away with those charges?

Mr. NIXON. No; they are part of the franchise obligations.

The CHAIRMAN. They are part of the franchise obligations?

Mr. NIXON. Naturally the communities—I am not speaking of New York alone—wanted to get all they could out of these people. They thought they had concessions of great value and they taxed them well and required them to repair the pavements and various other charges.

The CHAIRMAN. What system of taxation do you have, on gross earnings or ad valorem?

Mr. NIXON. We have a certain fixed charge on the valuation.

The CHAIRMAN. Do you believe that the systems should pay that tax?

Mr. NIXON. Since this is a public service, I am under the impression that both paving requirements and taxes should be done away with. Now understand, that, like the liquor tax, means a tremendous sacrifice to the government in itself, and the government of the city has not any too much money now; hence it would be combated. This is a public service. The streets belong to the people for walking on them or driving on them or for travel on these cars. The man that drives and walks—certainly the man that walks—pays no special tax. The automobiles pay their tax to the State; they all equally wear upon the street; but the streets are for the purposes of the city. We have made our bridges free, and it seems to me that proper consideration of the burdens which are to be placed upon these companies will require an assumption of the fact that taxes in general and the fixing and repairing of the streets should not be paid by them, because we must not lose sight of one fact—that no matter what it costs, the people are going to pay it in the long run.

The CHAIRMAN. Do you favor eliminating assessments and taxes when the company is operating under a fixed charge?

Mr. NIXON. No; not at all. As long as the 5-cent fare remains fixed we must, I think, put the taxes on them.

The CHAIRMAN. Suppose you abandoned the assessment of your taxes and paving regulations now, would that permit the companies to operate on a 5-cent charge?

Mr. NIXON. No.

The CHAIRMAN. Then that is not the solution?

Mr. NIXON. That is not the solution. It is a helpful factor in the solution. For instance, you take the \$57,000,000 worth of 7 per cent securities. If, in the solution, while the city, of course, can not lend its credit to private enterprise, there could be some refunding of

that, say at 4½ per cent, the mere change in that amount, if it were accepted by the people who hold the notes, I have no question would enable us to put a large block of the city bonds into the self-supporting plant, and so outside the debt limit.

The CHAIRMAN. Should the up-State commission have any control of either service, capitalization, or rates of your railway system in New York City?

Mr. NIXON. Well, that would be an implied criticism of the legislature, which in its wisdom drew this law, if I would say one way or the other. They would have a sense of perspective, possibly, but they would not have that constant daily contact which the man on the spot has.

The CHAIRMAN. Do you find that the situation is so complicated in New York City that it requires regulation by a local body?

Mr. NIXON. By a local body; or the general commission would have to have on the spot people who would give the same constant and daily touch with the situation that a commission which is located there has to do. It would not make much difference.

Commissioner SWEET. Do you know that the situation throughout the country is very acute with regard to these railroads?

Mr. NIXON. I do.

Commissioner SWEET. Do you think it is the duty of this commission to elicit all the facts possible and make recommendations that would tend so far as possible to help that condition?

Mr. NIXON. I think it would be most helpful. We want a general sense of perspective with the men who are able to review the operations of all these great municipalities and the transit systems throughout the country; because if we went to New York and found that men who had formerly operated lines at 5 cents were praying for relief, and found, too, that in every other city in the country they were able to get along with that rate of 5 cents, we should assume there was some lack of management or some incapacity on the part of those in New York. But if it reflects a universal condition which you gentlemen have been able to review, it would be most helpful to apply the broad general facts which you have found in the solution, and I am sure it would be most helpful and most welcome.

Commissioner SWEET. Have you been taking any notice of the hearings that have already been held by the commission?

Mr. NIXON. Every chance I got; all the papers I could read.

Commissioner SWEET. Do you think the kind of publicity that is given through newspapers and other sources is conveying to the general public a correct idea of the real situation and doing any good?

Mr. NIXON. As you know, I very strongly opposed the appointment of this commission.

Commissioner SWEET. I did not know you did.

Mr. NIXON. I did, and in the papers. I have always reserved the right in my thinking to change my mind; and I believe it is now rendering the most valuable service to the country and giving a clear understanding of the situation all over the country and from all that you will be able to bring about general lessons which will be of great value to everyone concerned.

Commissioner SWEET. You were present in New York when ex-President Taft made the statement that he thought he was the original suggestor of this idea of this Federal commission. Did you hear him say that?

Mr. NIXON. Yes.

Commissioner SWEET. He was sort of daddy of the commission?

Mr. NIXON. Yes.

Commissioner SWEET. At that time you did not agree with him? Or did you?

Mr. NIXON. Well, I did not want to be bothered. I had so much work to do that I thought you would hear me in a perfunctory way and make recommendations. I think now you are really going into the heart of the whole situation and will be of great help to me; and I am very glad to change my mind.

Commissioner SWEET. What I wanted to get at is: At the time former President Taft made that statement, and you heard him make it, whether you agreed with him, or you have changed your mind since?

Mr. NIXON. I have changed my mind since. I have changed it with the way you have done your work, which has won me over.

Commissioner SWEET. Thank you. Now, Mr. Commissioner, at the very basis of the whole problem, I take it from what you are now saying that you think that absolute and correct knowledge of all the facts is one of the most essential things to reaching a right conclusion on this subject.

Mr. NIXON. Well, no. A man who will give an opinion on facts which are inexact and facts which have not been clearly and properly determined after criticism from all sides, his opinion would be worthless anyway.

Commissioner SWEET. Yes. As between the matter of profit in the conduct of a public service like street railroads and the quality of the service itself, from the viewpoint of the public, which ought to receive the preference?

Mr. NIXON. Service.

Commissioner SWEET. Service always?

Mr. NIXON. Always service. And I want to say here that New York City—and I have been in practically all the great cities in the world—has the best service in the world, and to such an extent that people expect more probably than ought to be given. I know that when we changed the H system there, we used to run down the West Side of New York from the northern part of the city and then cross over and go down the East Side on Broadway. When we stopped going across there in a continuous ride and men were landed on Church Street, I got a number of complaints. The fact that they used to be able to be discharged on Broadway and now they were discharged on Church Street, which was about 200 feet away—they objected to even that extra walk. Now, that can not be governed by the transit systems of the city—stopping for a man at his doorstep and carrying him to his office, but we are almost doing it.

Commissioner SWEET. Passing upon the question as to whether a flat rate or a zone plan should be put in practice in New York, if I understand you right, you favor the flat-rate plan upon the ground that it tends to better distribute the population so far as their homes are concerned?

Mr. NIXON. Yes.

Commissioner SWEET. You are giving almost sole attention to the matter of service in that respect, and general advantages of the public, rather than to the matter of profit to the operating company?

Mr. NIXON. Yes. I say we must carry these long hauls at the expense of the man traveling on the short haul.

Commissioner SWEET. That is it, exactly. But the chief consideration, in your mind, is the public good?

Mr. NIXON. Absolutely. Service comes first. Really, safety comes first, and then dependable service.

Commissioner SWEET. Of course; so that you are giving first attention to the subject of service?

Mr. NIXON. Safety first, and then service, adequate and dependable.

Commissioner SWEET. Isn't safety a part of service?

Mr. NIXON. Yes. It goes without saying, of course.

Commissioner SWEET. Your next consideration is that of reasonable return?

Mr. NIXON. No; the next consideration is keeping the systems up. Of course that is service, as well; keeping the systems up to a high state of efficiency.

Commissioner SWEET. I include all that in service.

Now, when you come to the other grand division—of profit, or return upon investment—that can not be ignored, of course; no continuous service can be rendered unless it pays a reasonable return upon investment, can it?

Mr. NIXON. Absolutely not. You must understand here that both the city and outside corporations have put money into the systems.

Commissioner SWEET. I understand that.

Mr. NIXON. And the trouble is that one gets his money first, and the other fellow comes afterwards.

Commissioner SWEET. I understand. But in my question now I am thinking to some extent of the general subject throughout the country, as well as New York.

Mr. NIXON. All right. I will try to answer you.

Commissioner SWEET. So that a plan must be devised by which under all conditions a reasonable return can be produced from what is paid by the car riders?

Mr. NIXON. Well, if municipalities would disregard the rights of property whenever they wanted to, you would get, in the future, very little investment.

Commissioner SWEET. Absolutely.

Mr. NIXON. The man is entitled to a return upon his investment as long as property rights exist.

Commissioner SWEET. That would be carrying the service idea to rather an absurd point otherwise, and would involve considerable taxation on the part of the public to meet deficiencies, if the service was continued.

Mr. NIXON. The people, in the long run, pay for it anyway.

Commissioner SWEET. Yes; the people in the long run pay for it anyway.

Mr. NIXON. Always.

Commissioner SWEET. That brings up a question that I wanted to get your views upon, and that is the consideration of the car riders as distinguished from the balance of the community.

Do you consider that this old traditional paving of the tracks, between the tracks and just outside, that you have spoken of, places an unfair burden upon the car rider as compared with the general community?

Mr. NIXON. Well, the general community should take care of that. Just because the car rider has to ride, I do not think he should be taxed.

Commissioner SWEET. Exactly. The car rider, under that system of taxation, actually pays, or it is paid out of the nickels that the car riders give for the service?

Mr. NIXON. Unquestionably.

Commissioner SWEET. And do you consider that, as between the two elements in the community, unjust?

Mr. NIXON. I think it would be more just rather to charge it to the general community.

Commissioner SWEET. And more in conformity with our general institutions if it is properly understood?

Mr. NIXON. Yes.

Commissioner SWEET. Do you think the general public really understands, or has come to an appreciation of the fact that the car rider is bearing a burden there that should be borne by the whole community?

Mr. NIXON. Well, I do not know. It is rather hard to tell about the general public. The general public is becoming very enlightened. The men that we used to consider as not knowing about these general questions are taking the keenest interest in them, and they talk about them and discuss them, and they know; they know, for instance, that they can not get 10 cents' worth of service for 5 cents, or 6 cents' worth of service for 5 cents; and they know that there should be such a condition that if they can ever produce that service for radically less than 5 cents they should get the advantage of that.

Commissioner SWEET. In Washington, as you know, we have two street-railway companies.

Mr. NIXON. Yes.

Commissioner SWEET. One fairly prosperous and the other far from it; and that produces a complication with regard to what should be done in connection with fares. You have three?

Mr. NIXON. Yes.

Commissioner SWEET. If I understand you right, you think that the street railroads of a city are a natural monopoly, in the sense that they ought at least to be under one general holding company?

Mr. NIXON. At least three separate railway corporations; I would say three, and have them all reduced down to that; and the ultimate ideal to aim at is the whole thing.

Commissioner SWEET. If they cover the same territory and there is any element of competition between them—as there is in the case of the Washington companies and some of your own companies?

Mr. NIXON. Yes.

Commissioner SWEET. Is not an embarrassing and unnecessary feature introduced that interferes somewhat with equitable control and regulation of the companies on the part of the public, where they are under different ownership?

Mr. NIXON. You are probably referring to San Francisco, where there is practically municipal operation of one line, which can cut down and charge it to the public and club the other fellow?

Commissioner SWEET. Under the system of having two private corporations, as is the case in Washington here, if one covers a part of the territory, or has a more efficient management, or for any reason is prosperous and getting along very well under present control, and at the present fares, and the other is losing money all the time and needing public assistance in some way and asking for an increase—it would be rather embarrassing to give authority to one that would not be given to the other in the way of an increase of fares, would it not?

Mr. NIXON. Yes.

Commissioner SWEET. And so far as they competed, it would defeat its own purpose, because you would throw business to the one that had the lowest fares?

Mr. NIXON. That is the reason I do not want to see this relief or amendment done piecemeal in New York.

Commissioner SWEET. And under a single management that condition would not occur, would it, where the whole thing was centered in one corporation, or one holding company, as you say?

Mr. NIXON. That is correct.

Commissioner SWEET. I understand you to theoretically like the zone plan, but you think that the interests in New York are better served by the flat rate?

Mr. NIXON. By the flat rate; yes.

Commissioner SWEET. Just one thing further, and only one, and that is with regard to the prevention of strikes. You have spoken of there being two elements, material and labor, that created the present serious situation throughout the country, the very high costs?

Mr. NIXON. Yes.

Commissioner SWEET. I suppose you know that in Chicago a demand of 85 cents per hour, or something like that, has been made?

Mr. NIXON. Sixty-five has been given. I know it is a very large increase.

Commissioner SWEET. And the demand was for 85 cents. They have just been climbing up and up and up; have they not?

Mr. NIXON. Yes.

Commissioner SWEET. Do you consider that transportation, either on the steam roads or on the electric roads is in a class by itself, and ought to occupy a different relation toward labor from other industries of the country?

Mr. NIXON. Absolutely. I consider it a quasi-public service.

Commissioner SWEET. You think that the public is so interested, has such a deep, vital interest in the subject of transportation that it ought not to be held up by strikes?

Mr. NIXON. It must not be held up by strikes. The distress in a great city like New York is something that we must avoid.

Commissioner SWEET. Now, as to the practical way of preventing them: I think you made a remark in your direct statement to the effect that you thought a contract might be made with the individual workers when they are taken on?

Mr. NIXON. Oh, no, no. I said that there could be collective bargaining, common collective bargaining. I mean a committee representing the men could get together and make a contract. And I believe the good common sense of the labor people of the country would stand by such a contract and carry it out.

Commissioner SWEET. That would presuppose their being unionized?

Mr. NIXON. Unquestionably. We might as well admit these facts. We can not make anything by dodging them.

Commissioner SWEET. So that that contract or understanding would be collective, and made in advance?

Mr. NIXON. Yes.

Commissioner SWEET. Would you favor a law that would make it a conspiracy or a crime, or punishable by fine or imprisonment, or both, to bring on a strike and tie up transportation, either of street railroads or steam roads?

Mr. NIXON. That is a question of compulsory arbitration, and that is a matter which we have got to work out through a term of years, depending upon the common sense and upon the general understanding and patriotism of the labor unions. If, every time we are able to give an increase in fares to help all conditions, it must altogether be applied to a raise of wages, we will come to the point where there is no limit in the amount to be charged. But if, for instance, a situation should arise where a demand is made upon a company that is not now making sufficient to make the service that we require to maintain its equipment in the perfect condition that we want, and which we have the right to enforce and must enforce under our duty, and it is falling behind, and has neglected certain things wherever it could, and it is then asked, as a condition of avoiding strikes, to give some more, that is a great problem which will have to be solved by the city government of New York, in so far as our local situation is concerned.

Commissioner SWEET. If a collective contract such as you have mentioned, should be made and should be broken by the employees, what will be the remedy?

Mr. NIXON. Then I think that in a very short time they will lose the general support of the public. They have it now. They have their sympathy all over the country. If they show that they are entirely unreasonable, then they will not keep that great public support and sympathy and will have to be handled in another way.

We had a situation the other day in Staten Island that I might mention in this connection. The men were about to go out on strike. They had signed a contract through the same union which brought about the strike in the Brooklyn Rapid Transit. And the president said: "You can not strike. We have signed up for a year, and you can not strike. If, on the 1st of January, when this agreement lapses, I find that you have real grievances and ought to have it, I will be the first to fight for you; but you have signed this agreement, and you have got to abide by it." When we get a few men like that—and there is a lot of common sense in the men in the unions to-day, because they know, as everybody else knows, that they need the support and sympathy of the public and that when they are undue in their demands they will lose that sympathy—it greatly facilitates the settlement of the problem. But, just as I say, if they get what they

want—if they get wages which will give them the standard of living which they had before, when the purchasing power of the dollar was greater, and they then make unreasonable demands which, as fast as we get rates of fare increased would absorb these increases by the increase of wages, we would get to a circle which simply would run around itself, and the increase of wages would chase the increase of fares, and probably be a little ahead of it all the time, and that would be an insuperable condition.

As to penalizing men who sign an agreement and do not keep it, I can not tell about that. We had a condition, for instance, on the municipal ferries. They struck, and men were brought over, even policemen, by the mayor, and that situation was handled in rather a drastic way; and the men went back to work. Whether you could make it a crime to strike I do not know, but I should say not.

Commissioner SWEET. Would you include in this collective contract that you spoke of a just and equitable form of arbitration or settlement of disputes?

Mr. NIXON. I would include provision for the settlement of grievances always. We have that now.

In connection with the settlement of the strike in Brooklyn the other day, there was an arbitration committee formed, first of a representative of the union, and second, the receiver and one man to be unanimously chosen by the two, to whom these various grievances are to be presented; and they agree, by written instruments signed by the officials of the union and by the receiver to agree to such an arbitration. Not only do they agree to the arbitration then, but as to future questions; so that we thought we had it all settled when this trouble sprang up in the Interborough.

Commissioner SWEET. If you were a member of this commission, Mr. Commissioner, would you be willing to recommend, as you view the subject now, the general adoption through the country of a somewhat modified and amended and slightly improved Cleveland plan as the one for cities that are in trouble and have an old system that they are dissatisfied with and operating under?

Mr. NIXON. I especially think it is the best and most equitable plan for the situation that has come about that I have seen in any city of the country.

Commissioner SWEET. Thank you. That is all.

Commissioner MEEKER. I would like to ask a few questions.

How do you explain, in New York, that the street-railway systems are in financial distress and can not pay operating costs, while transportation congestion there is the greatest to be found any place on earth, while in other cities with a less amount of passenger transportation carried, the railroads are able to get along?

Mr. NIXON. I told, in general, a matter which would appeal to almost anyone. For instance, take Cleveland and New York: The gross receipts as to percentage on the money invested are one-third in New York what they are in Cleveland. Now, you have not the congestion in Cleveland that you have in New York, but the congestion carries a tremendous service over long distances at a loss, and it does not carry it enough. The figures speak for themselves.

Commissioner MEEKER. Referring to the zone system, do you not think that a zone system might fill up the holes in the transportation

curve and equalize the passenger transportation throughout the day, and thereby add very materially to the revenues of the New York companies and enable them to take advantage of the peculiar situation of New York—namely, the immense congestion of population?

MR. NIXON. I have told you that originally the zone system is the best system that can possibly be adopted, because you make a man pay for what he gets. But we have contracts in New York City that require us to furnish long or short hauls for 5 cents; and while we might, in the congested parts, for instance, or loading from some center, charge 3 cents or 5 cents for the first mile and 1 cent for each mile after that, as they do in New Jersey, it would tend to break the faith, to a certain extent anyway—to a large extent—upon which a tremendous amount of city building was predicated; outlying districts have grown up overnight, almost, and flourishing centers, through the fact that they knew they could get transportation for 5 cents to the great center of New York's activity, which is one-fortieth of its total area. Now, if you go back and charge this man more for his 20-mile ride he will come in there and live, and he will have families in one room in tenement houses instead of in an open house with light and air all around. That seems to be the idea.

You are limited by that consideration, by the force of congestion, which we are trying to avoid, and also by the fact that already the city has made contracts, and the people of the city have made their investments for many years with the general idea that there would not be a zone system established.

Commissioner MEEKER. Your principal objection is the existing contracts and franchises?

MR. NIXON. Yes; but even with the existing contracts and franchises I believe it to be perfectly possible to arrive, in a few years, after the intimate operation of the system has been established, after the connecting links have been supplied which are now in process of completion, to get back not only to a 5-cent fare, but to a better fare.

Commissioner MEEKER. Have you considered the effect that a zone system might have in distributing not primarily population but industries?

MR. NIXON. Yes. It might force industries away from the congested districts, where the men could get to them.

Commissioner MEEKER. That, I think, was the purport of the chairman's question.

MR. NIXON. I tell you logically, from the point of common sense, the system which places upon each man—as nearly as can be done in the handling of such a great and intricate problem—a charge practically in proportion to what he gets is, of course, the common-sense solution of any problem. But you take a letter to San Francisco for the same price as you take it across the street here in Washington.

MR. WARREN. What is your opinion—I do not quite get either your opinion on the chairman's question or Commissioner Meeker's question—do you think the zone system in New York would spread the industries so that you would have a number of industrial centers instead of the one great congested center?

MR. NIXON. It would tend to. And while argument is against it, I say that in view of the fact that the people have been educated to

the idea of a general ride for 5 cents, with so many disturbing elements not to be considered, we shall probably, in any general adjustment, keep to this one fixed fare.

Commissioner MEEKER. A readjustment must be made, and before you can get to a permanent basis at all are you not obliged to get rid of the terrific congestion, which is growing worse, as you have testified?

Mr. NIXON. It is growing worse all over the city. I was talking then of congestion on the streets of Manhattan. The congestion on the streets of Manhattan is getting to the point where it is going to take hours to get from one end of the city to the other.

Commissioner MEEKER. As long as you have the 5-cent fare the people are going to live in Newark, and even away out in Connecticut, are they not?

Mr. NIXON. They can not go there for 5 cents. As soon as you get over into New Jersey they charge anything they want to. I think now from Perth Amboy to New Brunswick it is over 30 cents—31 cents or 32 cents—when it was only 15 or 16 cents a few months ago. Every other city in the country is raising fares, as you know, in meeting the present situation. We are standing pat on the 5-cent fare.

Commissioner MEEKER. As long as you have your 5-cent fare you will have your population living in widely distributed centers and coming into New York to fill up your streets and give you an impossible transportation situation?

Mr. NIXON. I know that; but it means so many spider webs overlapping; as we develop these centers of industry we are going to be congested all over.

You must remember that we are adding over 100,000 men every year in the city of New York. We are carrying 80,000,000 more passengers every year. We can not, no matter what we do, keep pace with the needs of the city. I think the whole city will build up, so that you will get your spider web of increased fares from one center, and in a very few years you would have to overlap those with a whole lot of other spider webs.

It seems to me that having predicated so much upon a fixed fare the city will have to stand by it. I am not attempting to defend it logically. I can not. On all your railroads, if you carry a man 10 miles, you charge more than you do for 5. That is, in all the railroad systems. In practically all of the cities—in most of the cities—they are arriving at that solution of the problem, and I can not defend the 5 cents. I only tell you that on account of the vast interests that are predicated upon the universal 5-cent fare and in the light of the fact that the city has signed for it and pledged its good faith to a contract I do not believe that you will bring about a zone system in the city of New York. It is a belief, not a conviction based upon my own logic, I assure you.

Commissioner MEEKER. Do you give as your answer to my first question, then, that the difference between the bankruptcy of the New York City street-railway lines and the lack of bankruptcy in the lines of some other cities where apparently there is not as much transportation at least to be conducted and where apparently the income could not be as great to meet fixed charges—do you think

that that difference is due primarily to the difference in cost of construction in New York as compared with the other places?

Mr. NIXON. No. Take New York and Cleveland. Cleveland is the best example we have got. You get three times the income on your investment that you do in New York. You get 10 cents on a dollar in New York and you get 30 cents on your investment in Cleveland. And that 10 cents has to carry everything with us. In other words, we carry 2,000,000,000 people practically for \$100,000,000, and that is 10 per cent, as the investment is about a billion dollars in round numbers.

The general idea would be—if New York is so greatly congested, and so many people are traveling, the cars are full to overflowing—that we must necessarily make more money on the investment than anywhere else, because there we get the greater use of the plant. But we do not. We make less than in the smaller centers even. That is a matter of fact. It shows the wonderful efficiency of that system. It is the wonder of the world—the handling of the people in the city of New York; and they are getting the greatest service for the least money on the face of the earth.

Commissioner MEEKER. It is because of the long haul and the extensions.

Mr. NIXON. I am not talking about the money so much, but what you get in the way of service. Here is a service which, when it is finished—which it will be in a short time—will be equal to London and Paris and Chicago put together.

Commissioner MEEKER. How do you explain that in New York you have had a 49-cent maximum wage per hour, plus 10 per cent?

Mr. NIXON. That is what the Interborough is now giving. They start at 41 cents, and work up to 49 cents. And it is only a few years ago that \$1.60 per day was thought to be a big figure.

Commissioner MEEKER. In Boston, I believe, they have a '62-cent maximum.

Mr. NIXON. Yes; and in Chicago they have just given '65.

Commissioner MEEKER. Yes; Chicago, '65, and Detroit, '60.

I have just completed a countrywide cost-of-living survey; and we all knew, before making the survey, that New York was rather an expensive place in which to live; it probably ranks about third or fourth, I should judge, in expensiveness, cost of living, of the cities of the United States.

Mr. NIXON. Yes.

Commissioner MEEKER. How has it been possible to maintain this difference in wages?

Mr. NIXON. Well, they make it to the advantage of the man; he gets certain advantages in the way of day runs, and all that through length of service. They take good care of them. They have very good rooms for them, and everything like that. In other words, they try to make the men contented, as far as they can.

In New Jersey they have just agreed with the Amalgamated Association, if I remember, on 51 cents. That takes in Newark—

Commissioner GADSDEN. Fifty cents.

Mr. NIXON. Was it 50 cents or 51?

Commissioner GADSDEN. Fifty.

Mr. NIXON. And that is 1 cent over New York. In the case of the Interborough you start at 41, and it takes 10 years before you get to 49. If they give 10 per cent more, that is practically 54 cents. You can not understand why the New York men work for less than they do in other places. I only know that they do. But they are asking for more.

Take the 65 cents; and, as I told you, it represents—making a mental calculation, and taking into account the number of industries and occupations coming under the Amalgamated membership that are raised to 65 cents—it amounts to over five and a half million dollars added to the pay roll.

Mr. WARREN. What do you mean by jitney service in New York, when you refer to that?

Mr. NIXON. Jitney service has not developed in New York as it has in New Jersey, where it competes directly down the various big streets; but in many outlying districts we have it. Roughly, I assume the jitney service is a small charge for a number of men packed into an automobile or a coach or a bus or something like that. We tried to make an estimate of that, and it was a fair estimate, as closely as we could understand the factors, and we thought that its effect upon the transportation system was to reduce their receipts about \$12,000,000.

Mr. WARREN. You mean the same thing that we ordinarily understand by jitney service?

Mr. NIXON. I do not mean an automobile picking up one passenger, like a taxi.

Mr. WARREN. You do not refer to taxi service, of course.

Mr. NIXON. No; but where they crowd a number of men into one vehicle and charge a low rate.

Mr. WARREN. You think that amounts to \$12,000,000, excluding the Fifth Avenue buses?

Mr. NIXON. Oh, yes. The buses are not taken into account.

Mr. WARREN. That jitney service does not exist much on Manhattan Island itself?

Mr. NIXON. No. It is in Brooklyn and places like that.

Mr. WARREN. That is all.

The CHAIRMAN. We are very much obliged to you, Mr. Nixon. (Witness excused.)

The CHAIRMAN. Who is your next witness, Mr. Ogburn?

Mr. OGBURN. Mr. Chairman, we have several more witnesses for to-day, possibly due to a misunderstanding in dates on the part of one or two. There are several of these who will only speak on a limited phase of the subject rather briefly.

In order to preserve the continuity of this present discussion the next witness will be Mr. William P. Burr, corporation counsel of the city of New York.

STATEMENT OF MR. WILLIAM P. BURR.

The CHAIRMAN. Just proceed in your own way, Mr. Burr, if you please.

Mr. BURR. Gentlemen of the commission, I can only hope to give you some insight into the legal aspects of the situation in the city of New York, so far as the street-railroad systems are concerned.

The street surface railroads of the city of New York are themselves, in my opinion, responsible for their present position. It is the result of extravagant, high finance in the past. The veriest tyro in municipal ownership could do no worse than the great financiers who shaped the destinies of these great properties in the past.

In Manhattan they founded individual companies, with individual franchises calling for a 5-cent fare. These companies were organized and obtained the municipal consent for the purpose of promoting the welfare of the traveling public, and by emulation and competition to attract patronage.

Years ago, under the sanction of procured legislation, these various companies were consolidated into one system, the law providing as a safeguard against such manipulation that no more than 5 cents could be charged for a continuous ride from one part to another thereon.

The history of that system, the Metropolitan Street Railway system, is a history of speculation, speculation, and fraud, with bankruptcy in the end.

Upon the ruins of that company, in the bankruptcy court, a new company was organized—the New York Railways Co.

Certain of the lines forming part of the system, like the Third Avenue line, were dissevered, and other lines were held under heavily weighted leases, costing the new company nearly \$2,000,000 per annum. This was in 1912. Its financial burden consisted of \$18,000,000 of fundamental 4 per cent bonds, \$70,000,000 of investment, 5 per cent interest payable on and when earned, and \$18,000,000 of stock.

Since the reorganization in 1912, so far as I can learn, neither the interest on the investment 5 per cent bonds or the \$18,000,000 of stock has ever been paid, except that interest was paid one year on the investment 5 per cent bonds.

The war came on, with its high prices and scarcity of labor. It was not the cause of this company's distress. It but added to it.

The real solution of the street-railway problem in New York City is municipal ownership, which means operation for service, not for profit, and in the interests of all the people of the city.

Transportation is just as necessary as water, and the city now owns and operates successfully the greatest municipal waterworks in the world.

The city owns the subways and will ultimately operate them. It should also own and operate the surface railways.

With regard to the New York Railways Co., there are about 150 miles of revenue or running track. Prof. Bemis, who made an examination of this railroad for me for the city, stated:

With only 150 miles of track, my estimate that the fair value of the property which has no power house was probably under rather than over \$45,000,000, becomes increasingly probable, for it means over \$330,000 per mile, which is twice what I found to be the value of a similar system in Washington, D. C.

The return of 6 per cent, or \$2,700,000, might be a fair return on the \$45,000,000; even, say, 7 per cent return would only be \$3,150,000.

The company earned much more than this prior to 1917.

The following table brings this out very clearly, showing the situation for the fiscal year ending June 30, in each case:

Year.	Street railway operating income.	Profit on \$45,000,000.
		<i>Per cent.</i>
1913.....	\$4,749,011	10.6
1914.....	4,800,759	9.0
1915.....	3,805,476	9.4
1916.....	4,392,330	9.8
1917.....	2,593,288	5.8
1918.....	2,179,430	4.8
1919 (10 months).....	606,313	-----
1919 (12 months, estimate).....	1,200,000	2.7
Average return.....	-----	7.3

If the present property of the New York Railways had a cost, less depreciation, of considerably less than \$45,000,000, as may well have been the case, the profits would, of course, have been a very much larger percentage.

Examination of the above table will, therefore, show that the profits in excess of 6 per cent of \$45,000,000, or \$2,700,000, were as follows:

Profits in excess of 6 per cent on \$45,000,000.

1913.....	\$2,049,011
1914.....	1,308,759
1915.....	1,105,476
1916.....	1,692,330
1917 (deficit).....	106,712
1918 (deficit).....	520,570
1919 (deficit).....	1,500,000

Total profits above 6 per cent on \$45,000,000, \$4,028,294.

The surface lines of the Brooklyn Rapid Transit Co. have for several years embraced substantially 500 miles of revenue track; that is, track over which cars run in the carrying of passengers, as distinguished from track in car-barns and storage barns.

These surface lines may be taken as the Brooklyn Rapid Transit system, except the New York Consolidated, which is mostly elevated and subways.

Since the transfer situation and the question generally of fare, now under discussion, relate to the surface lines, those lines are here considered.

The estimated reproduction cost new of both the surface and the elevated lines of the Brooklyn Rapid Transit was made by Byron J. Arnold and a large staff of assistants for the public service commission in 1909, but depreciation was not deducted, save in the case of the Coney Island and Brooklyn road.

Since his appraisal most of the power houses have been placed under the management of a separate but affiliated organization, from which the surface lines buy their power. Hence this investment should no longer be computed as that of the surface line.

From such examination as I have thus far been able to make of the Arnold appraisal, properly adjusted with respect to depreciation, power-house investment, additions since 1908, and so on, and from my experience in the appraisal of similar properties elsewhere—

This is Prof. Bemis speaking—

I believe that the cost at the time it was constructed of the property now in use, less accrued depreciation, is under \$100,000 a mile of single track, or under \$50,000,000 for the entire property.

The latter figure may, however, be assumed at the present time for purposes of discussion.

Bearing in mind that 6 per cent of this \$50,000,000 would be \$3,000,000 a year and 7 per cent \$3,500,000, and ignoring for the time being the minor changes which took place in the property from year to year through additions, depreciation, and so forth, the following table may be given as approximately representing net earnings after caring for depreciation and taxes, and the

ratio of this to \$50,000,000, and also the excess of the earnings, until the current year above 7 per cent, or \$3,500,000. In view of the way in which securities, and especially bonds paying 5 per cent, could be floated at about par in 1915, it is believed that a 6 per cent return would be sufficient; but for purposes of computation a 7 per cent return is here used.

The time covered in every year is for the fiscal year ending June 30. Profits of 5-cent fare and free transfers, Brooklyn surface lines:

Year.	Profits.	Per cent on \$50,000,000.	Excess over 7 per cent return.
1913.....	\$5,963,544	11.9	\$2,463,544
1914.....	6,045,853	12.5	2,545,853
1915.....	5,880,675	11.8	2,380,675
1916.....	5,914,357	11.8	2,414,357
1917.....	5,421,813	10.8	1,921,813
1918.....	4,447,283	8.9	947,283

July 1, 1918, to May 31, 1919, \$1,366,429.

June, 1919, estimated, \$233,571.

June 30, 1918, to June 30, 1919, \$1,600,000; profit, 3.2 per cent; \$1,900,000 deficiency.

Despite the decline below 7 per cent of \$1,900,000 in 1919, the last eight years have shown a profit in excess of 7 per cent of \$10,773,525. It would, therefore, seem that a profit of only 3 per cent in 1919 need not be considered serious. Even if, as is not likely, the profit in 1920 should be only 4 per cent, yet the average profits of the eight years on an investment of \$50,000,000 would still be over 9 per cent. Moreover, conditions are beginning to improve rapidly, as shown by the following table, giving the street-railway operating income—that is, the profits from railway operation of the surface line:

October–December, 1918, \$111,907.15 profit.

January–March, 1919, \$40,591.30 deficit.

April, 1919, \$51,276.59 profit.

May, 1919, \$176,161.41 profit.

Since, with a day less, the net revenue from street railway traffic was increased \$50,000 in June over the month of May, it may be safely assumed that the net operating income of June would be over \$50,000 larger than in May.

It is evidently necessary to go into a thorough appraisal of the Brooklyn Rapid Transit surface lines in order to determine how far the fair value of the property may be from the \$50,000,000 used previously in this letter. It may well be that the cost of the property now in use, less depreciation, is considerably under \$50,000,000, but even if it be \$60,000,000, the earnings of the company during the last six or eight years have been a large percentage thereon. If fares are to be raised every time profits fall, of course they should be reduced when profits rise, but any service-at-cost plan could not be considered without the establishment in the first place of a fair value.

And I may say in this connection, since the New York Railways and the Brooklyn Rapid Transit have gone into the hands of receivers that, at the earnest request of the city as well as other parties interested, an investigation was ordered by Judge Mayer into the affairs of the two systems—the New York Railways and the Brooklyn Rapid Transit. Stone & Webster have been employed to make such an appraisal. We not only want the financial history of the two systems, but we want the financial history in detail of each of the individual lines going to make up each system.

Now, that we have never been able to get, and, in my judgment, before there can be any sensible or intelligent attempt to readjust or reconstruct these railroads, we must have that investigation and that report. But it does seem that Stone & Webster have been able to supply the railroads themselves with all the data and information which they deemed necessary in order to make their application for an increase of fare.

Mr. WARREN. You say it does or does not seem?

Mr. BURR. It does seem that they are able to supply to the railroad companies themselves this information.

Now, these leases which I have referred to in the case of the New York Railways Co.—the leases which were taken over as the result of the reorganization in 1912 in the bankruptcy court, imposed upon this New York Railways system, I figure as follows:

To the Bleecker Street & Fulton Ferry Railroad Co. the New York Railways Co. agreed to pay, under lease, dividends of $1\frac{1}{2}$ per cent on \$900,000 common stock, \$13,500.

Corporate charges, maintaining secretary, office, and office supplies, annually, \$601.14.

Taxes, real estate used in operation, \$4,973.57.

A total of \$19,074.71.

Which equals 2.12 per cent on this road's capital stock and also interest on \$700,000 4 per cent mortgage bonds.

To the Broadway & Seventh Avenue Railroad Co.:

Dividend of 10 per cent on \$2,100,000 common stock, \$210,000.

Taxes on real estate used in operation, \$123,450.20.

Revenue on real estate not used in operation, \$41,771.23.

Taxes in excess of revenue from that real estate, \$81,678.97.

Making a total of \$291,678.97, or 13.9 per cent on the capital stock of this corporation.

To the Central Crosstown Railroad Co.:

Interest on \$250,000 6 per cent mortgage bonds, \$15,000.

To the Christopher & Tenth Street Railroad Co.:

Dividend of 8 per cent on \$630,000 common stock, \$52,000.

Corporate (administrative) charges, \$1,500.

Taxes, less revenue from nonoperating real estate, \$3,694.

Making a total of \$57,194, or 8/10 per cent on the capital stock of this corporation.

The CHAIRMAN. Mr. Burr, is that exhibit you have in such shape that you can file it for the record?

Mr. BURR. Yes; I will file that for the record, and I will give you the totals.

The CHAIRMAN. It is quite difficult for us to carry those figures in our minds as you read them into the record.

Mr. BURR. Do you suggest that I submit it for the record?

The CHAIRMAN. You may give us the total and file it in the record.

Mr. BURR. The fixed rental on these roads is \$1,936,887.60.

The paper submitted by Mr. Burr is as follows:

[Extracts from report of commissioner of accounts to the mayor.]

THE NEW YORK RAILWAYS CO.

Percentage paid by holding company.

To the Bleecker Street & Fulton Ferry Railroad Co., under lease:	
Dividends of $1\frac{1}{2}$ per cent on \$900,000 common stock-----	\$13,500.00
Corporate charges, maintaining secretary, office, and office supplies, annually-----	601.14
Taxes, real estate used in operation-----	4,973.57
Total of-----	<u>19,074.71</u>

Equals 2.12 per cent on this road's capital stock and also interest on \$700,000 4 per cent mortgage bonds.

1308 PROCEEDINGS OF FEDERAL ELECTRIC RAILWAYS COMMISSION.

To the Broadway & Seventh Avenue Railroad Co.:	
Dividend of 10 per cent on \$2,100,000 common stock-----	\$210,000.00
Taxes on real estate used in operation-----	\$123,450.20
Revenue on real estate not used in operation-----	41,771.23
Taxes in excess of revenue from that real estate-----	81,678.97
Making a total of-----	<u>291,678.97</u>
Or 13.9 per cent on the capital stock of this corporation.	
To the Central Crosstown Railroad Co.:	
Interest on \$250,000 6 per cent mortgage bonds-----	15,000.00
To the Christopher & Tenth Street Railroad Co.:	
Dividend of 8 per cent on \$650,000 common stock-----	52,000.00
Corporate (administrative) charges-----	1,500.00
Taxes, less revenue from nonoperating real estate-----	3,694.00
Making a total of-----	<u>57,194.00</u>
Or 8/10 per cent on the capital stock of this corporation.	
To the Forty-second & Grand Street Railroad Co.:	
Dividend of 18 per cent on \$748,000 common stock-----	134,640.00
Taxes, less revenue from nonoperating real estate-----	32,906.75
Making a total of-----	<u>167,546.75</u>
Or 22.4 per cent on the capital stock of this corporation.	
To Twenty-third Street Railroad Co.:	
Dividend of 18 per cent on \$600,000 common stock-----	108,000.00
Corporate charges-----	1,500.00
Taxes, less revenue from nonoperating real estate-----	29,289.99
Making a total of-----	<u>138,789.99</u>
Or 23.13 per cent on the capital stock of this corporation.	
The New York Railways Co., as stock owner, receives from this company annually in dividends the sum of \$91,350.	
To Eighth Avenue Railroad Co.:	
A fixed rental of-----	215,000.00
Taxes, less revenue from nonoperating property-----	50,675.37
Making a total of-----	<u>265,675.37</u>
Or 26½ per cent on a capitalization of \$1,000,000.	
This company pays its stockholders 17 per cent dividend; out of the difference of 10 per cent paid by the New York Railways Co., 6 per cent is paid on an issue by the Eighth Avenue Railroad Co. of \$750,000 certificates of indebtedness.	
To the New York & Harlem Railroad Co.:	
A fixed rental of-----	400,000.00
Taxes-----	46,350.53
Corporate charges-----	2,500.00
Making a total of-----	<u>448,850.53</u>
Or 15.74 per cent on a capitalization of \$2,850,544.	
To the Sixth Avenue Railroad Co.:	
A fixed rental of-----	145,000.00
Taxes, less revenue from nonoperating property-----	30,690.35
Making a total of-----	<u>175,690.35</u>
Or 8.78 per cent on a capitalization of \$2,000,000.	

To the Ninth Avenue Railroad Co.:

A fixed rental of-----	\$64,900.00
Corporate charges-----	2,500.00
Taxes, less revenue from nonoperating property-----	32,170.35

Making a total of----- 98,670.35

Or 12.33 per cent on a capitalization of \$800,000.

The Fort George & Eleventh Avenue Railroad Co. is owned entirely by the New York Railways Co. and does not pay dividends.

The Thirty-fourth Street Crosstown Railroad Co. under an agreement pays the interest on \$1,000,000 5 per cent mortgage bonds and nothing on its common stock.

Income and operating expenses.

The gross operating revenue for the fiscal year ending June 30, 1918, was----- \$11,920,033.77

Less operating expenses for same period----- 8,131,470.70

Balance net operating revenue----- 3,788,563.07

Less taxes----- 1,170,223.73

Leaving an operating income of----- 2,618,339.34

In addition:

Nonoperating revenue from dividends----- 318,983.67

Nonoperating revenue from securities, etc----- 162,866.71

Nonoperating revenue from rents, etc. (net)----- 118,959.08

Nonoperating revenue from bridge locals----- 26,308.41

Making a gross income of----- 3,245,457.21

Deductions from gross income:

Interest on bonds, notes, etc----- \$1,292,491.41

Track and terminal privileges----- 46,961.44

Rents----- 115,035.71

Amortization, debt, and discount----- 7,714.92

Fixed rental of leased roads----- 1,936,887.60

3,399,091.08

Leaving a net deficit of----- 153,633.87

If the large dividends now paid to the stockholders of the various lines were reasonably reduced this deficit would soon be made up.

Mr. BURR. Now, I want to say, with regard to these leases, when the difficulties of the New York Railways Co. arose and they asked for an increase of fare, these lessor companies were unwilling to cut down one jot, tittle, iota, or one farthing, the amounts that were agreed to be paid in 1912.

The CHAIRMAN. Are those long-standing contracts?

Mr. BURR. Yes. Before that, they were assumed before the bankruptcy of the old Metropolitan in 1912. These people say they have a contract, and they are going to hang to their contract and they want their rent paid—they want their pound of flesh.

I will just give you one illustration: The Eighth Avenue Railroad Co., with a fixed rental of \$215,000, taxes less revenue from nonoperating property, \$50,675.37, making a total of \$265,675.37, or 26½ per cent on a capitalization of \$1,000,000. This company pays its stockholders 17 per cent dividend out of the difference of 10 per cent paid by the New York Railways Co., 6 per cent is paid on an issue by the Eighth Avenue Railroad of \$750,000 certificates of indebtedness. To the New York & Harlem Railroad Co. a fixed rental

of \$400,000; taxes, \$46,350.53; corporate charges, \$2,500; making a total of \$448,850.53, or 15.74 per cent on a capitalization of \$2,850,544.

Commissioner SWEET. Do these leases expire at different times?

Mr. BURR. These leases are irrevocable, except when the rentals are not paid.

Commissioner SWEET. No expiration is fixed in the leases?

Mr. BURR. Well, 999 years.

Commissioner BEALL. What did you say the capitalization of the Eighth Avenue line was, Mr. Burr?

Mr. BURR. Making a total of \$265,675.37 or 25½ per cent on a capitalization of \$1,000,000.

Commissioner BEALL. As a matter of fact, have not some appraisals shown that that property has a real value of something like \$4,000,000?

Mr. BURR. Yes; and that is the fact, that the Eighth Avenue line not only has taken this rental during the time of the lease but, now that its lease has been broken and that it is dis severed from the New York Railways system, it takes the properties for which the New York Railways Co. has paid, to the extent of \$4,000,000 besides.

Commissioner BEALL. But what I mean to say is that rental is not really 26 per cent on \$1,000,000. As a matter of fact, the gross sum is on a property that has cost over \$4,000,000. I mean, is not that statement a little misleading? We are seeking information, you understand.

Mr. BURR. That is not misleading. That is an extract from the report of the commissioner of accounts exactly, his report to the mayor as to what he found.

Commissioner BEALL. I know, but do you think that is a correct statement, if a property is worth \$4,000,000—if it has that value to-day, or approximately that—do you think it is fair to say it is only worth what it may be capitalized at?

Mr. BURR. Well, I say under the lease it gets this rental, and under the lease it also takes the property when the lease ends.

Commissioner BEALL. I know; but I do not see how that alters the fact. Under the lease I suppose they have to keep it up—

Mr. BURR. Well, that is the record, and it speaks for itself.

Commissioner BEALL. But your statement, if I understand it, would lead us to believe that the property was nominally worth \$1,000,000 and was receiving something like 26 per cent; while as a matter of fact that is only a nominal capitalization in stock, or whatever it is, stock and certificates of \$1,000,000, and represents property which is to-day worth \$4,000,000.

Commissioner MEEKER. Does the million dollars represent the actual capital invested?

Mr. BURR. I could not tell you as to that. I am quoting now—

Commissioner BEALL. Was there not an examination made some years ago—I do not know by whom it was made, whether it was Stone & Webster, but some reputable firm—that at that time gave a value to that property, the physical property, of \$4,000,000, or approximately so?

Mr. BURR. I do not recall that. I do not know as to that.

The CHAIRMAN. I do not understand, Mr. Beall, that the witness has attempted to place a value upon these properties.

Mr. BURR. No; I am not giving you any value.

The CHAIRMAN. He is referring to the capitalization of the companies.

Commissioner BEALL. But they are not earning 26 per cent on their value.

The CHAIRMAN. He has not said so.

Mr. BURR. I am giving you the figures as they appeared upon the report, and they have not been denied. They may be characterized or explained, but those figures are not denied anywhere.

Commissioner BEALL. We are only seeking information.

Mr. BURR. The commissioner of accounts, in making his report showing the fixed rentals of \$1,936,887.60, called attention to the fact that, if these rentals were reasonably reduced, the deficit which existed at that time when he made the report of \$153,633.87, would soon be made up. He says the New York Railways Co. was incorporated as a reorganization of the Metropolitan Street Railway Co. on December 29, 1911, its functions being the operation under stock ownership and leaseholds of several of the railroad properties in the Borough of Manhattan. The several lines acquired are not operated as individual routes but as routes, the routes using trackage of their own line and parts of others, and as the accounts are kept as one system it is not possible to determine the financial operation of any individual company, route or line.

Now, as to the Interborough. The subway, on August 31, 1918, the Interborough Rapid Transit Co. through its president, Mr. Shonts, issued a statement when it desired to float \$33,400,000 Interborough Rapid Transit Co. notes, in which it is stated:

The urgent necessity of providing the enlarged rapid-transit facilities is demonstrated by the rapid growth of traffic and earnings of the company's lines since the opening of the subway, exclusive of the subway mileage constructed as the result of the contracts made with the city in 1913, for the enlarged system, as shown by the following figures.

And there he gives the figures for the year ended June 30, 1905: Passengers carried, 339,104,820; operating revenue, \$17,201,083; and for the year ended June 30, 1918, passengers carried, 770,998,335, with an operating revenue of \$40,497,728.

And Mr. Shonts continues:

During the 10-year period of 1907-1917, in which the older subway was operated as a complete unit and under normal conditions, the company's gross revenue increased from \$22,902,579 to \$39,866,146, or 74 per cent, and the net income available for interest increased from \$4,483,110 to \$12,514,996, or 179 per cent. This experience of the past would justify the expectation of continuing expansion of traffic and earnings of the enlarged rapid-transit system, although a period of transition is to be anticipated during which the dense traffic currents shift from old-established routes to the new ones.

Mr. WARREN. When was that? I did not get the date.

Mr. BURR. August 31, 1918. And referring to those dense traffic currents, the fact is that the preferential of \$6,356,000—I think it is—which the Interborough is entitled to, is based upon the operation of the subway in New York and Manhattan to the point of saturation. In other words, the earnings of \$6,000,000 and odd were based upon what they were earning at the time the contract was made from the suffocating conditions resulting from the overcrowding of the subways at that time and the earnings they were making at that

time. So that as that condition is remedied, or disappears through the opening up of new branches of the subways, the overhead charges increasing, the profits will not be so great.

Owing to war conditions—

Says Mr. Shonts in this letter—

it seems probable that with the present rate of fare the amount of preferential earnings to which the company is entitled will not at first be fully earned, and the city will therefore receive no return upon its investment in the new subways, but the estimate of independent engineers indicates that the income available to the company will be insufficient to provide for the \$11,520,000 required for estimated interest and sinking fund charges payable out of income in 1919.

The estimate of the engineers on the basis of a 5-cent fare is as follows: 1919, gross revenue, \$45,600,000. Total income available under contracts for return to company, \$12,440,000. The increased cost of operation in 1918 reflects conditions which are common to similar enterprises throughout the country as a consequence of the war, and in view thereof the company has made an application for an increase in fare, which is now pending before the public authorities. The granting of this necessary increase would enable the city to obtain sooner a return upon its investment in the new Interborough subways.

Now, the city is not worried about the sooner return that he refers to. The city has invested over \$200,000,000 in the subways upon the basis of a 5-cent fare, and for that purpose and to secure that 5-cent fare it is willing to wait for its return upon the money.

Now, I heard Commissioner Nixon say, while I say here, what is the fact, that any increase in fare in the city of New York would be detrimental unless it is made to all the companies. That is, if, for instance, to-morrow the fare of the Third Avenue Railroad was increased to 7 cents, it would ruin the Third Avenue Railroad. There are in the whole city of New York the B. R. T. system, embracing the surface and the subway lines; the New York Railways Co., the surface railroad in the city of New York; and the Interborough subway. Then there is the Third Avenue system, and there is the Second Avenue system, which is in the hands of a receiver and has been in the hands of a receiver for many years; and there is another line, the Fifty-ninth Street Crosstown line. If the Third Avenue line fare was increased people would seek the Fourth Avenue, or any parallel line, to come down; in other words, they would seek the cheapest transportation. And if the fares on the surface lines were raised the result would be that they would seek transportation on the subways. So that is the complication in New York. I think we are differently situated in New York from any other city in the country.

It can not be settled in three months nor can it be settled without additional legislation, as I think you asked Mr. Nixon, for this reason: Franchises for street railroads in the city of New York have been granted since 1832. And in 1874 the constitution, adopted at that time, which went into effect in 1875, provided that thereafter no tracks could be laid in the city of New York without the consent of the local authorities. And in those consents, since 1875, the city has invariably fixed the 5-cent fare as a condition. And anterior to that time, by the consents granted by the local authorities, the 5-cent fare was also made a fundamental part of the local consents.

There are some legislative grants directly to the railroads and those also embraced the 5-cent fare. But in 1897—these were all

perpetual franchises I have referred to—the new charter went into effect, and under the new charter the city can not grant any rights except in the manner provided by the charter—that is, by resolution by the board of estimate and apportionment. Formerly it was by the board of aldermen but, as amended in 1905, by the board of estimate and apportionment, and must be for the period of 25 years with one renewal of 25 years, and at the end of the new period the property becomes the property of the city, in the streets, the tangible property, and the property and plants, and so forth, may be taken over on an appraisal.

So that to-day if these railroad companies, having these perpetual franchises applied to the city of New York for a modification of their franchise or to fix a different fare in their existing perpetual franchises than that originally fixed under the conditions that I have stated, the city government is powerless to do it; it could not legally do it. It would be necessary for these companies to surrender their perpetual franchises and come in and apply for a new franchise under the new conditions existing under the Greater New York charter. In other words, the perpetual franchises would have to be surrendered and a limited franchise granted instead.

So that could not be done in three months, nor if it was desired, or if the legislature desired, to give the city authority to increase the fares in the perpetual franchise, and instead of granting a limited franchise to grant them a perpetual franchise for 7 cents or 10 cents, that would have to be empowered by the legislature.

Now that question arose in New York in the Quinby case, and here recently in the International Railway Co. v. Rann in Buffalo. In the Quinby case the court of appeals decided that the public-service commission had no power to change or alter or affect in any way the fare fixed in the franchises granted by the municipal authorities under the authority or power vested in them by the constitution. And in the Rann case, the International Railway Co. case, the question came up twice. It came up in 1918 and went to the court of appeals and the court there held that the 5-cent fare was a property right and that it could not be taken away from the people of the city of Buffalo except as provided by the charter of the city of Buffalo, and the charter of the city of Buffalo provided that no rights of the people of the city of Buffalo could be taken away except by a referendum, and that question of the increase of fares was referred to the people of the city of Buffalo and defeated by 37,000 votes, I think, or something of that kind.

Now then, the railroad applied itself again to another endeavor and sought to mandamus the public-service commission to increase the fare, notwithstanding that referendum, upon this theory that this whole question of the rates in Buffalo was the subject of an agreement known as the Milburn agreement, made some years ago, at which the rate was fixed at 5 cents, but in that agreement it was specifically provided that nothing herein shall be construed as taking away from or limiting in any way the power of the legislature itself to fix the rates of fare. So that upon this last opinion the court held that that was different from the situation presented in the Quinby case; and here there was no question of the municipal consents, that here there was a clear intent both on the part of the city and of the

railroad company that the legislature should, whenever it deemed it necessary, to change or increase the rates, and that therefore the public-service commission, being the delegate of the legislature, has the power to increase the rates. But you will see that that situation was entirely different from the situation which is embraced in the constitutional consent of the local authorities.

Commissioner GADSDEN. On that point, do not some members of your New York bar construe that last decision as applicable to your local condition?

Mr. BURR. As being applicable to the condition to Buffalo or to New York?

Commissioner GADSDEN. To New York.

Mr. BURR. Well, some do.

Commissioner GADSDEN. That is a controverted question at present; is it not?

Mr. BURR. I can not see that. The judge intimates there that—I will just read you from his decision. Judge Cordoza points out—this is an analysis I made of the opinion—that the 5-cent fare, when made a condition in consents by municipalities to street-railroad operation, has the force of what is called in law “a condition subsequent,” for a failure to live up to which, the municipality would have the right to revoke its consent. From this well-settled doctrine, Judge Cordoza makes certain deductions which are of great value to the city in this situation, and which are important for the future guidance of all parties concerned. Judge Cordoza says:

A municipality may be willing to have an electric railroad in its streets; it may be unwilling to have a road run by steam. It may be willing to have a railroad that can furnish cheap transportation; it may be unwilling to have another.

Judge Cordoza then points out that if a city is unwilling to have a railroad operate on its streets for more than a 5-cent fare it may not only impose that condition, but it may enforce that condition by revoking the franchise if the condition is violated. On the other hand, he concedes to the legislature a certain regulatory power in this matter, saying:

The legislature may say that, subject to the conditions subsequent annexed to the consent of the locality, there shall be a change of motive power or an increase of the rates. It may say that if the local authorities do not promptly manifest the election to revoke, the condition will be waived.

The practical inference from the suggestion thus made by the court of appeals is that the legislature may pass a law authorizing the commission to increase rates which will become effective, unless the municipal authorities will, within a reasonable period prescribed in such law, take action to revoke the franchise.

Reading between the lines of his opinion, it is not unreasonable to deduce therefrom that the court wished to let all concerned realize that a law (such as the Carson-Martin bill) baldly seeking to override fare provisions in municipal consents would be of such doubtful constitutionality that its enactment ought not be attempted. Following this up the court has pointed out another course open to the legislature, viz, to authorize the public-service commission to increase rates provisionally upon the consent of the local authorities forthwith to elect whether they wish to revoke the franchise in the streets rather than permit the increase.

This is a solution of the matter which, after all, would leave in the city authorities that power for which they have right along contended in the interest of the people of the city. The decision, therefore, even more distinctly than did the Quinby case, recognizes the right of the people of the city to insist that the street-railroad companies may operate in the streets only so long as they live up to the terms of their franchise contracts, including the 5-cent fare provisions.

Only through modification by the city itself of the contracts, or through a surrender of the perpetual franchises for new short-term grants under the Greater New York charter, can the companies obtain the privilege of charging increased fares.

That is as we view that decision.

Mr. WARREN. There is not any question but what the city could permit a change if it wanted to through its proper authorities?

Mr. BURR. If we had the authority I just spoke of as lacking.

Mr. WARREN. Is there a question as to whether you have the authority? Assuming you chose to make a change, can not you make it? Can not the same city government which consented originally consent to a modification?

Mr. BURR. In the way I spoke of. You can not do it under the conditions that prevail now. You can take the old style of perpetual franchise and you can surrender it and you can get a new franchise under the new conditions, a limited franchise, but the city has no power to-day to change the terms of the original perpetual franchise and make a perpetual 5-cent franchise into a perpetual 10-cent franchise.

Mr. WARREN. It is your view that the only thing they can do is to substitute this 25-year franchise that is renewable?

Mr. BURR. Yes.

Mr. WARREN. But they can not modify any of the terms of the old ones and let it continue in other respects?

Mr. BURR. No; because the charter distinctly provides that any resolution affecting rights in the streets must be by legislation of the board of estimate and in the manner provided by the charter, and that is the manner provided by the charter.

Commissioner GADSDEN. Could the city waive its right to fix a fare and leave it to the commission?

Mr. BURR. The commission has no power. I am now testing the power of the commission, or Commissioner Nixon. Commissioner Nixon is very sincere about what he has in mind; he is very desirous of increasing the fare and giving transfers, and all that sort of thing. Of course, naturally, we are strict constructionists in that regard. I must necessarily look out for the interests of the people and see that nothing is unduly waived or given away. We hold to our contract. The companies have all the time from time immemorial held in sacredness of the contract and insisted that their rights must be protected under the contract, and that they can not be taken away except by due process of law. And if ever an attempt was made during the time they were making all this money to reduce the fare to 3 cents we would have been confronted with the contention that we had ourselves fixed the rate at 5 cents.

And in all the glowing accounts that have been made to investors—for instance, in the subway case, that has been accentuated and great

stress laid upon it—that the 5-cent fare is sure, it can not be even changed by the legislature, it is a contract, and we say it is a contract, we say we have \$200,000,000 there to back up that contract for the benefit of the people of the city of New York. That contract can not be changed, and that we will contest to the end.

Now, I think that cheap transportation is as necessary as cheap water in a great municipality like the city of New York. I think transportation is tied up with better housing. We had serious difficulty in the city of New York quite recently through lack of accommodations and through this rent profiteering. People were unable to get houses and get any sort of accommodations. And everybody knows that that is tied up to health and morals, the kind of habitation or housing that is afforded. And the only solution of that in my judgment is cheap transportation.

I think it would even pay a great city like New York to operate its transportation system at a decided loss for the purpose of giving the people opportunity to spread out and not to live in the congested districts. I think that would be to the interest of the public welfare and the interest of public morals and public safety. And that is the situation as we find it in New York.

I simply wanted to call attention in addition to the statement filed by the Interborough with the bureau of statistics and accounts of the public service commission on August 6, 1919, which apparently shows, on a capital stock of \$35,000,000, that from 1904 to 1918, December 31, they earned 187½ per cent dividends, or \$65,625,000.

Now, as I say, gentlemen, the temporary solutions of the difficulties in New York are not easy, because of the legal impediments that I have referred to. We introduced in the legislature last session a bill authorizing municipal ownership. This administration was elected by an overwhelming vote on a platform of municipal ownership. It requires thought, of course, and ways and means to be devised to take over these properties, but as I have said, we already recognize in New York need for municipal ownership, because we have made money through the operation of the greatest municipal water plant in the world.

We own the subways and we have spent \$200,000,000 to have them operated for the benefit of the people, and those subways will eventually—in 1967, if not earlier—revert to the city of New York. And the question of the surface railroads; they seem to be unable to make them a success. This is the second time that the New York Railways has been in the bankruptcy court, and that does not speak well for the great men who have been managing this great property. As I say, I think that a city which is able to conduct successfully a great water plant such as we have should be able to operate successfully its transportation system.

Then, again, in the charter, just as I have stated, the principle of eventual municipal ownership is recognized by a limited franchise which is now permissible with the reverter to the city at the end of that time.

I forgot to say, in connection with the leases, for instance, that in the Brooklyn Rapid Transit, the Brooklyn Rapid Transit which owns the Brooklyn Heights Railroad Co. under a 999-year lease, pays the Brooklyn Heights Railroad Co. interest on a funded debt

of \$6,925,000, 10 per cent dividend on common stock of \$12,000,000, and an allowance for organization expenses. It also pays to maintain the demised railroads in good condition and repair, replace all buildings and property, keep all equipment in good repair and replacement, and pave and keep in good repair the streets in accordance with statutory or municipal regulation. Nothing is paid to the other subsidiary companies in the system, they being the property of the Brooklyn Rapid Transit Co. through ownership of stock, and their earnings are taken into that company.

And I may say, after a careful study for a solution of the difficulties that exist, we also introduced a bill in the legislature to abolish the holding company in the operation of the street railway and the reorganization. The municipal-ownership bill was defeated and the holding-company bill was also defeated, and that is the situation as it stands now. I am hopeful that, from the many facts which have arisen and the general attention which has been attracted to the situation in New York, it will result in the legislature's giving us some sort of real constructive, up-to-date legislation next year.

We had a strike. I think Mr. Nixon referred to it in his testimony. Now, the receiver of the B. R. T. set himself up as an authority to deny recognition of the labor unions. In fact, on examination he testified before the public-service commissioner, Mr. Nixon, that the demands of the men for an increase in wages he realized were merely secondary; that he knew that their chief and fundamental demand was recognition of the union, and that he never would and never intended to give them recognition of the union. Well, at the request of the mayor I called the attention of the judge who appointed him to that situation, because I had in mind that all through this country the labor unions have been recognized generally; and I remember that in the great trouble they have had in England the labor unions have been recognized; in fact, I remember reading that Lloyd-George regretted that there was a disposition to ignore the heads of the labor unions, so that no agreements could be made; and I remember hearing Lord Reading when he was here state that a great catastrophe was averted in England when they held a labor convention at which over 500 representatives of labor and employers got down, with the result that a committee of ten was appointed, and they brought in a platform which was agreeable to all concerned, and a great catastrophe was thus averted. So that having that in mind, I appealed to Judge Mayer to direct his receiver to meet his men and to confer with them, and the judge came down and Mr. Nixon had a talk with the men, and they all met in conference, and the result was that, having heard everybody pro and con, he called us in and we agreed upon a basis of settlement, and that strike was settled.

Now, those men were more desirous of having that recognition than they were of anything else; and they cheerfully signed an agreement to arbitrate the other things, as to whether they were entitled to an increased rate per hour.

Apparently without waiting for anything to be done by the men, the companies have agreed to increase their wages right off, 10 per cent. I do not know whether that is done for the purpose of forcing the issue as to the increase of fare, but I think that the men, the workmen, the labor unions, realizing perfectly that they are now

engaged as workmen for a bankrupt company, having obtained recognition of their union, are in no hurry to press their claims for increased rates or wages until there can be an adjustment of the difficulties presented by the situation of these companies.

The CHAIRMAN. The noon hour has arrived. Have you completed for formal statement?

Mr. BURR. Yes.

The CHAIRMAN. May I ask you just two or three questions before we adjourn? Has any tribunal fixed the value of the several leased properties which you referred to this morning?

Mr. BURR. No, sir.

The CHAIRMAN. Then you can not furnish us with any information bearing upon the value of those several properties?

Mr. BURR. No; that is what we are very anxious to get, as I said. Stone & Webster are now supposed to be engaged in making that valuation.

The CHAIRMAN. So the tabulation that you filed here this morning showing the large earnings is simply a computation of the return upon the capitalized value of those properties?

Mr. BURR. You mean what I read of Prof. Bemis's?

The CHAIRMAN. Yes.

Mr. BURR. Upon the assumption that the value of the railroads is as he stated, \$45,000,000, because we have not been able to get the complete detailed tabulation or appraisal.

The CHAIRMAN. Now, if public sentiment in New York favored municipal ownership and the legislature would pass suitable laws, what would be the earliest possible time that that consummation could be obtained?

Mr. BURR. Well, I could only make a guess as to that.

The CHAIRMAN. Yes.

Mr. BURR. That would be largely dependent. For instance, under the constitution we may not exceed the debt limit, but where we issue bonds where they are self-producing, self-supporting—for instance, the water bonds—they are not counted in the debt limit because they are self-supporting, and it would be merely a matter of arrangement between the city and the financiers representing this whole system first to ascertain what was the true value, what is the true basis, and arrive at a *modus operandi* by which they could be taken over. Or it might be that a temporary expedient would be resorted to. For instance, there might be a modification of the time within which the subway would be taken over. We can take it over in 10 years. We might arrange to have the whole thing thrown into one company and these franchises surrendered and short-time franchises granted under conditions to be named in those franchises which would permit the gradual taking over of the properties by the city and eventually municipal ownership. That would all be a matter of good faith and good workmanship.

The CHAIRMAN. But it would take considerable time?

Mr. BURR. It would.

The CHAIRMAN. Now, in the interim, if it does appear that these properties or some of them can not pay their operating expenses and fixed charges, or some part of the fixed charges, on their present 5-cent fare, what is the solution?

Mr. BURR. They will have to call in some capable engineers and reconstruct or reroute their present plan of operation. Because as the result of this consolidation into a system—mind you, originally these franchises were granted to create competition—but when they came into a system then they discontinued and disconnected and abandoned here and there and—

The CHAIRMAN. Then the remedy is through economies of operation and consolidation rather than by an increased rate?

Mr. BURR. I think so.

The CHAIRMAN. We will stand adjourned until 2 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTERNOON SESSION.

The CHAIRMAN. Who is the next witness, Mr. Ogburn?

Mr. OGBURN. Prof. Irving Fisher, who will talk on the depreciation of money.

STATEMENT OF PROF. IRVING FISHER.

The CHAIRMAN. Do you prefer to make your statement without interruption, Professor?

Mr. FISHER. No; I prefer to be interrupted.

In the first place, I would put on record the way in which I came here. One of the men associated with the electric-railways industry came to me and asked me if I would appear before the commission, representing them, and for a fee, and I replied that I would not. Not that I objected to taking fees, but that I was very ambitious to have all the weight that anything I might say might have, because I felt it so important, and it might be regarded as being *ex parte* when it is not, because it would squint in that direction. Therefore I came at the invitation of your commission and have not even my expenses paid.

I have tried in previous cases to avoid being in any other than a judicial attitude in such matters, where I tried to give expert testimony as an economist.

I spoke in 1915 on this subject in Boston, at an arbitration proceeding between the Bay State Electric Railway Co. and the union of motormen and conductors. I was asked at that time, to appear in behalf of the union, and I refused to take a fee, and took the ground that the electric railways should pay the wages that the men deserved, sufficient to compensate for the higher cost of living, irrespective of whether they could afford to do so or not, which seemed a very strong ground to take, and I took it strongly, partly because I felt the electric railway was a public-service corporation, and that no part of the cost ought to be borne by the operatives of the industry. And when asked how the railways would recoup themselves, I said by raising the fare from 5 to 6 cents, or whatever is necessary. And that view was not taken by the majority of the arbitrators.

The reason that I made that statement then and make corresponding statements to-day, is that I believe this whole subject is one of monetary depreciation, primarily.

When we talk about the high cost of living, we are really talking about a low purchasing power of money, and this problem with

which you are dealing here is really a twin problem with the high cost of living. They both are parts of the problem of depreciated money, as I see it.

This morning one of the witnesses spoke about—I think the chairman mentioned the fact that this problem is not a local problem, and can not be dealt with locally; I understand that that is one thought among those who are interested in these proceedings—that, through the publicity you get, it shall be understood to be a national problem. It is not only a national problem, but it is a world-wide problem. It is not only a problem of the electric railways, but a problem concerning every one who is involved in any form of contract.

I would like at some length, if I may—I shall be very glad to be asked to abbreviate if I am unduly extending any part—to go into the evidence for the statement that I have just made, that the problem is one of the depreciation of money.

My old master in economics used to say, "When you have a social situation to deal with and investigate, divide your subjects under four heads: First, what is it? Second, why is it? Third, what of it? Fourth, what are you going to do about it?" I would like to take those four subjects up in order.

First, as to the facts to be explained.

The level of prices to-day is substantially double what it was in this country before the war. According to the figures of Commissioner Meeker, the wholesale index number as last reported was exactly 200 per cent of the index number for 1913, and for retail prices, 182 per cent.

Abroad prices have risen more than that.

I think we can say that outside of Russia, where they have risen immeasurably—no one has ever measured it; perhaps one hundred or a thousandfold—the price level has, on the average, probably been tripled by the war.

In this country the price level is triple what it was in 1896.

All these measurements are on the basis of index numbers, with which Dr. Meeker has made us all familiar.

An index number is a number that expresses the average percentage rise or fall of prices.

If wheat has risen 4 per cent since last month and steel has risen 10 per cent, on the average the two together have risen 7 per cent, midway between 4 and 10, or 4 plus 10 divided by 2 is 7. So the index number for those two commodities would be called 107, on the basis of 100 per cent for the previous month.

Commissioner MEEKER. You are not taking the weighted—

Mr. FISHER. No. That is counting the two equally. If you count the 10 per cent increase as relating to wheat as twice as important as the 4 per cent increase relating to steel, then the average is found by counting the wheat twice. So you take the average of 10 and 10 and 4, which is 24, divided by 3, or 8 per cent; or if the other data is twice as important, then you count the 4 twice—4 plus 4 plus 10, divided by 3, which would be 6. But all the results agree very closely—6 per cent, 7 per cent, 8 per cent—the increasing does not make very much difference.

Of course, the same method applies to more than two commodities. Mr. Meeker has 300 commodities in his index number wholesale prices. When you have so many commodities, it makes still less

difference whether you count the commodities all equally, or count some as more important than others.

Commissioner MEEKER. Do you not think it would be well, for the record, to explain that all our index numbers are weighted?

Mr. FISHER. Commissioner Meeker's index numbers are carefully weighted, the wholesale index numbers, on the basis of the volume of transactions, or the value of the volume of transactions of the different commodities. The commodities which are sold in the markets in large quantities have a greater importance in the average than the commodities which are sold in small quantities. So that it is, I think, the most scientific index number that we have had in the world.

This instrument, the index number, is a very approximately accurate measure of changes in the price level, as is shown by the fact that, whether your index number is scientific or unscientific, it gives very much the same result.

We find the index number of prices has constantly changed. It is not a question simply of a changed price level since the war.

Some people seem to talk about reaching a new level of prices, as though we were going to keep them up. We are not going to keep them up. We never have kept a price level for five years at a time. It constantly changes. We were complaining about the high cost of living before we entered the war. There had been a rise of 50 per cent in the price level between 1896 and 1914, when we entered the war, and there had been a great fall in the price level prior to 1896, going back to 1873 in the world in general, and to 1862-1865 in the United States in particular. And before that the price level had changed.

I am sorry I have not a chart of a number of other diagrams. I constructed about 300 diagrams of the sort you have on the wall, and one of them, for England, goes back to 1782; and the price level has changed year by year, according to its index number, from 1782 to the present time.

There have been many occasions in history when the price level has suffered a great upheaval. That was true as far back as the sixteenth century, and it has been true, usually in times of war, when there has been, especially, paper-money inflation.

It is not true that every war raises prices, and it is not true that prices fall after every war.

I have there, in that long chart on the wall nearest the commission, a set of diagrams showing the behavior of prices before and after the end of the various wars. I think perhaps I had better go over there and use the pointer on that chart.

The Napoleonic wars began at this point and ended at this point [indicating on chart].

The ending of each war is represented by that dark line, so that you can compare the various wars with each other.

The Napoleonic wars in England showed this change in prices [indicating].

The dotted line represents the prices as translated into terms of gold.

The dark line represents the prices as quoted, which were in paper, which was depreciated relatively to gold, and therefore the prices were higher than when translated into terms of gold.

You will notice that in terms of gold the price level did not fall after the Napoleonic War, except for one year, and on the whole, for several years, remained as high as it had been before the war.

The War of 1812 in the United States showed a fall of prices after the war, due to conditions of the export and import trade.

The Mexican War did not affect the price level, apparently. It did happen to be going down both before and after the close of the Mexican War.

The Crimean War showed no particular effect.

The Civil War was like the Napoleonic War for England. You notice that in terms of paper our greenback standard, the price level rose rapidly during the war, and almost immediately after the war fell very rapidly the first six months, and gradually after that, though it took 15 years after the Civil War to get down to the level before the war.

In terms of gold there was not even a fall of prices. There was some oscillation, but translating in terms of gold you can see the price level remained more or less constant. It oscillated up and down, showing no great tendency to go either up or down.

The CHAIRMAN. Were there any unusual facts in this country that caused the price level to remain stationary for quite a while after the Civil War?

Mr. FISHER. You mean in terms of gold?

The CHAIRMAN. Yes.

Mr. FISHER. No; I do not know of any unusual circumstance that would answer that question.

Of course, the prices in terms of paper did oscillate, enormously, and the unusual circumstance there was the measure of the currency.

The CHAIRMAN. Would the tremendous extension of railroad development and other enterprises have a tendency to keep up your price level?

Mr. FISHER. No; I think it would have a tendency to reduce the price level, because it would increase the general volume of trade.

There is the price level for England, France, and Germany [indicating on chart]. I might say that all these curves are plotted on what are called a ratio chart, a method of plotting that Commissioner Meeker is now using, and which has this advantage: That when any of these curves have the same slope or slant, there is the same percentage rise or fall of prices. In ordinary plotting that is not true, but with this method of plotting that result is given all the time.

In the Franco-Prussian War, you will notice that after the war the prices in France did not change very much, but in Germany there was quite an upheaval of prices, and then a subsidence afterwards. I attribute that to the indemnity that was paid by France to Germany, which inflated Germany's currency.

Commissioner MEEKER. Would not that cause a fall of prices in France? It was an actual payment of gold; was it not?

Mr. FISHER. Yes; it would tend to produce a fall, of course; and there was a fall within a year and a half of the close of the war.

The Spanish-American War I do not think affected price levels. They were going up both before and after the war.

I do not think the Boer War affected the price level in England materially, or the Russian-Japanese War in Russia and Japan.

This last gives the price level in the United States and England during the World War. You will notice from the slope of these two curves how rapidly prices went up—just about at the same speed that they went up during the Civil War.

The war is ended and the index number for the following year, of course, is not yet available.

The question is: Will this price level fall, as most people expected it to, immediately, as it did after the Civil War, will it remain constant, or will it rise?

No one can answer that question. I attempted several months ago to make my guess on that, and it was that prices would not fall for some time. I still make that guess. We have no reason to think that prices will fall back to what they were.

If you like, I will go into the evidence of this a little. So far as the first point of the four points that I was going to emphasize, the facts in the case, are concerned, the point is that the price level has always changed; in other words, the purchasing power of a dollar is not constant. When prices rise, the purchasing power of a dollar falls. That, of course, is merely stating the same thing the other way around. If the price level is double, the purchasing power of the dollar is cut in two; and vice versa, if the price level is cut in two, the purchasing power of the dollar is doubled.

Having this fact before us, that the price level is constantly changing, the next question is: Why is it? And why, in particular, is the price level to-day high?

All sorts of explanations have been alleged. This is a list of the causes that I have seen mentioned: Speculation; the middle man; foreign demand; the war; labor unions; short hours of labor and limitation of output; trusts; patent monopolies; the tariff; cold storage; longer hauls on railroads; marketing by telephone; the free-delivery system; the individual package; the enforcement of sanitary laws; the tuberculin testing of cattle; the destruction of tainted meat; sanitary milk; the elimination of renovated butter and of "rots" and "spots" in eggs; food adulteration; advertising; unscientific management; extravagance; higher standards of living; the increasing cost of government; the increasing cost of old-age pensions and of better pauper institutions, hospitals, insane asylums, reformatories, jails, and other public institutions; the increasing cost of insurance against accident and disease; the increasing burden of unemployment and crime; investments in public undertakings, such as railways, public works, etc.; the growing cost of military establishments, both before and during the Great War; the destruction of wealth by war; the withdrawal of labor to war; the concentration of population in cities; the high price of land; private ownership of land and other natural resources; impoverishment of the soil; the displacement of the near-by farmer as the chief source of food supply; the fact that farmers' wives no longer compete with large establishments in butter-making or poultry raising; drought; hoarding by housewives; daily purchases by housewives and their abandonment of home storage in attic, smoke-rooms, and cold cellars.

And when prices were falling, as they did between 1873 and 1896, you will find a similar list of reasons why they fell.

Commissioner MEEKER. This same list of reasons being alleged?

Mr. FISHER. Sometimes the same reasons being alleged.

In my opinion, without taking up your time to discuss each one of these alleged reasons, none of them are of any importance except the war; and the war is important, in my opinion, indirectly, not directly. It has raised prices through inflation, through monetary inflation. I have not been able to find any evidence that it has substantially affected the general price level in any other way. It has, of course, in other ways affected particular prices. The price of paper has gone up because of its scarcity, and the prices of some other things have gone down because their market was cut off; but the general price level has not risen because of a scarcity of goods in question, and the President, in his message to Congress on that subject, recently brought forth fresh data to prove that. I was very glad to see that he emphasized that point as one that those of us interested in this subject have been trying to work out for the last two years, and of which Wesley Claire Mitchell has been making some studies. All the evidence I can get at indicates that goods have not, in this country at least, been scarce, either between 1896 and 1914, before the war, or in general between 1914 and 1917, when we entered the war, or between 1917 and the present, while we were in the war.

There was, of course, a kind of a sense of dearth of goods for civil consumption, because we swung over from that kind of consumption to war consumption; but the general volume of goods in trade was probably greater during the war than before, according to the figures that I have tried to give on that subject for what I call the equation of exchange.

Now, the trouble with all these reasons is that they look on the wrong side of the market, or they give a reason which is not a reason, but merely "passes the buck"—if I may use that slang—on to some other cause.

There is a great deal of circular reasoning. Any expert in trade will immediately give the proximate explanation for the rise of prices that he is accused of making. He will say: "It is not my fault, but the man I buy of has raised the prices on me." The retailer blames it on the wholesaler and the wholesaler blames it on the jobber and the jobber blames it on the manufacturer, and so on. And they are all more or less right. The price of any one of them is raised because the price antecedent has risen. But that does not really explain why they all have risen, and you can not get an explanation by moving in a circle.

The trouble is, as I say, that we have been looking on the wrong side of the market. The price level is the resultant of the comparative importance of the volume of goods on one side and the volume of the circulating medium on the other side.

To be more specific, you have an equation of exchange always absolutely true between them: The money in circulation multiplied by the velocity of its circulation, plus the money in banks on deposit (or what we call deposits, or what should be called, properly, deposits in banks—the individual refers to it as the money he has in banks; it is not really money but credit—bank deposits) multiplied by their turnover, or the activity of the bank accounts, is equal to the volume of the trade multiplied by the price level.

To put it in figures, according to the calculations I made for 1918, the money in circulation—that is, outside of the Treasury and the banks—was (I will give approximate figures, because, as you remarked this morning, Mr. Chairman, you do not like to have too many decimals) two and a half billions, and its velocity was 30 times a year.

The deposits in the banks were twelve and a half billions, deposits subject to check, that is; and their turnover was 95 times a year.

Those two products added together are equal to the volume of trade, which is 641,000,000,000 units, each unit being the dollar's worth of trade in 1909, the base year from which all these calculations are made, multiplied by approximately 200 per cent, the price level, based on the price level of 1909.

The price level, as I believe and tried to show in full in my book called "Purchasing Power of Money," is the passive element in this equation, and it is the resultant of the other factors in the equation; that is, it is the result of the money in circulation at its velocity, the credit in circulation at its velocity, and the volume of goods, and it is always a question of fact which, at any one time, is the guilty factor, or which are the factors responsible for the change in prices.

While we have not as good data for the volume of trade as for these other factors, all the evidence that we do get seems to show clearly that the volume of trade does not change very greatly from year to year. It shifts gradually as compared with these other things, and almost never is the outstanding cause of the change in the price level. It may be, and probably is, in this particular time, in the war-ridden parts of Europe, the outstanding feature; but with that exception there are very few cases where we would say that was a fact, and almost always a state of facts indicates that the guilty factor is monetary—either the money itself or the deposits, generally the two together, and very often their velocities of circulation.

Now, I would like to summarize the arguments which prove that. This is true irrespective of the facts as we have them in statistics. In the first place, from the standpoint of probability, it stands to reason that a single explanation is simpler and more probable than a complex explanation. If you throw nine coins in the air, you would not be surprised if four came up heads and five came up tails; but you would be very much surprised if they all came up heads or if they all came up tails. There would be only one chance in several hundred that that would occur.

Now, all the nine groups of prices which are recorded in the Bureau of Labor Statistics have risen, if I remember right—I have the facts here, but I will not stop to go into them—perhaps there was one that fell between 1896 and 1914. But since that time I think they all have risen.

Now, it would be very surprising if that was an accident. It would be still more surprising if almost all of the 300 commodities—I think some 275 of them had risen, as it were, by accident—had just happened to do so; that there happened to be a simultaneous scarcity of these commodities.

It is far more probable that the other side of the market, the monetary side, is the varying element.

We have here, it seems to me, very much the same problem that the astronomers had when we thought we saw the sun and moon and stars rise and set every day; and for a long time all the world believed that they actually did rotate in 24 hours around the earth, which was fixed. And it took a great deal of argument and much evidence and the overcoming of a tremendous prejudice to establish the Copernican system as against the old Ptolemaic system of astronomy, and what finally won as much as anything was the probability in the case. It is a far simpler explanation to assume the simple turning of the earth around an axis to explain this daily rotation; and I think we have got to have a similar revolution of ideas in economics and come to see that while commodities do move, just as the stars do move, the most of the motion that we see which appears to be due to them is due to the movement of the dollar, on which we stand, so to speak.

So much for the argument of probability.

Then, the argument from fact indicates the same thing, as I have said. There are many statistics to show that.

I do not know how much time you would like to have me take, and I do not know how much detail you would like to have me go into; but somebody else has gone into this also, and that is Mr. O. P. Austin, statistician of the National City Bank, formerly Government statistician here, and if I may, I would like to quote from what he says:

Raw silk, for example, for which the war made no special demand, and which was produced on the side of the globe opposite that in which the hostilities were occurring, advanced from \$2 per pound in the country of production in 1913 to \$4.50 per pound in 1917, and over \$6 per pound in the closing months of the war.

Manila hemp, also produced on the opposite side of the globe and not a war requirement, advanced in the country of production from \$180 per ton in 1915 to \$437 per ton in 1918.

Goatskins from China, India, Mexico, and South America advanced from 25 cents per pound in 1914 to over 50 cents per pound in 1918, and yet goatskins were in no sense a special requirement of the war.

Sisal grass, produced in Yucatan, advanced from \$100 per ton in 1914 at the place of production to nearly \$400 per ton in 1918.

And Egyptian cotton, a high-priced product, and thus not used for war purposes, jumped from 14 cents per pound in Egypt in 1914 to 35 cents per pound in 1918.

Even the product of the diamond mines of South Africa advanced from 60 to 100 per cent in price per karat when compared with prices existing in the opening months of the war.

The prices are in all cases those in the markets of the country in which the articles were produced, and in most cases at points on the globe far distant from that in which the war was being waged. They are the product of countries having a plentiful supply of cheap labor and upon which there has been no demand for men for service in the war. The advance in the prices quoted is in no sense due to the high cost of ocean transportation, since they are those demanded and obtained in the markets of the country of production.

Why is it that the product of the labor of women and children who care for silkworms in China and Japan, of the Filipino laborer who produces the Manila hemp, the Egyptian fellah who grows the high-grade cotton, the native workman in the diamond mine of South Africa, the Mexican peon in the sisal field of Yucatan, the Chinese coolie in the tin mines of Malaya, or the goatherd on the plains of China, India, Mexico, or South America has doubled in price during the war period?

Lord d'Abernon, who has studied that subject in England, has compiled statistics of the prices of products and luxuries, which seem to be influenced not at all, or only very remotely, by the increase in the cost of labor and materials, so as to get something the price of which would not depend on any of the alleged reasons which I have quoted. He took old books, prints, and coins, for instance; and they advanced, roughly, 50 per cent in price. And there is lots more of it in that line, showing that you can not allege that war is a direct cause of prices; it is only that the war has produced inflation that explains in any considerable degree the general rise in prices throughout the world.

A third reason to believe that it is money that is at fault is that we find that the price levels always follow the money standards; that two countries having the same money standards will have the same price movements.

For instance, the United States and Canada, the United States and England and Germany before the war, and all the other gold-standard countries, had very similar price movements. I have some diagrams of that, but I have not got them here, and they show it very clearly. In fact, taking the seven principal countries for which we have a good index number and plotting their statistics, there is a very strong family resemblance.

In the same way, take two silver-standard countries, or three silver-standard countries—China, Japan, and India—who were on the silver standard between 1873 and 1893, and you find a strong family resemblance in their price movements.

Then you find that countries with unlike standards—monetary standards—have unlike price movements.

Take the period between 1873 and 1893, and gold-standard countries had a rise in price of about 25 per cent—I mean the silver-standard countries showed a rise in price of about 25 per cent—the two moving in opposite directions.

Then we find that the price level shows the same relation to the supply of money. That second diagram indicates that. There is Dun's index number, which I have used because it is published more promptly than that of the Bureau of Labor Statistics. It is not quite as good an index number, but it is always a little closer down to date. Dun's index number by months is plotted on the upper curve, and the money in circulation is plotted on the lower curve [indicating on diagram]. There I mean by "money in circulation" to include the money in banks as bank reserves, which is the basis for bank credit. All the money that does work is put down there [indicating], all the money outside of the United States Treasury.

You will notice that in August, 1915, money in circulation began to increase in this country.

At first, when the war broke out, at the announcement of war, there was a little convulsion in both money and prices, which could be specially explained, but that does not concern us here. But we did not really begin to have money inflation until August, 1915, when gold began to be imported from Europe. Europe had to buy materials of us, and she had to pay us in gold, and gold began to flow across the Atlantic in great quantities; and altogether we absorbed \$1,000,000,000 between that time and now, which is the

chief cause of inflation and the high cost of living here, in my opinion.

When that movement began, one month later Dun's index number shoots up.

At this point the money in circulation begins to ascend [indicating on chart]; one month later prices began to ascend.

Finally, money in circulation stops rising and reaches a sort of plateau.

• Three months later the same thing happened to the price level.

Then, at this point [indicating on chart] money in circulation shoots up again. Two months later Dun's index number shoots up.

Then there is another angle, followed two months later by a corresponding angle of the other curve [indicating on chart] and on—almost right along, the lag sometimes being one month, sometimes three, sometimes two, and in one case four months. Very likely in some cases these are coincidences. I can not put too much stress on this diagram; but it is extremely interesting, and I believe, in a general way at least, significant, there is so much correspondence between the two curves.

There are many kinds of inflation. There is gold inflation, which we have suffered from primarily; and paper-money inflation, which has always been recognized as a cause of high prices; and there is credit inflation; and these three kinds of inflation may be due to various causes.

Now, the primary cause of the upheaval of prices during the war, I believe, is credit inflation, which has been due in turn to war finance. In Germany, the way in which the bonds were subscribed for was, after the first issue of bonds, for the would-be lender to the Government to take the bond that he got on the first issue and deposit it at a bank, which had the right to use it as the basis for the issue of notes. These notes were then let to the person who would lend to the Government, and he lends these notes to the Government and the Government pays its bills with them and they go into circulation. It is really an indirect form of greenbackism, such as we had in a crass and more direct form in the Civil War. We came very close to it in this country. I heard one speaker during the war tell his audience to subscribe for Liberty bonds; that it was no trouble at all; that you could take the bond to the bank and take the money which you borrowed from the bank on the bond and lend it to the Government. In other words, you are making something out of nothing, and nothing is saved.

And to the extent that this war has been paid for, not out of savings but out of credits, it has not been paid for at all by those who did the nominal lending to the Government, but is really paid for by those who paid the high prices to the corner grocery through the high cost of living caused by this operation.

However, in this country that has not been the important cause of high prices. Most of our inflation occurred before we entered the war, as that last diagram will show. Our prices rose very rapidly during the period of gold inflation, and when we entered the war we almost reached a plateau of prices. There is quite a distinct angle there, and the price level has risen much more slowly since that time.

In general, taking a world-wide view, we may say that money in circulation in the world outside of Russia has increased during the war from 15 billions to 45 billions. Bank deposits in the 15 principal countries have risen from 27 billions to 75 billions. Thus both money and deposits have trebled, and prices on the average have probably trebled also. Russia has issued, altogether, \$80,000,000,000 under the Bolshevik régime, or more money than all the rest of the world put together.

Now, people have the idea that gold is stable, and the notion of gold inflation is a very difficult one to get. And some people bolster up the idea that gold is stable by pointing to the fact that the price of gold is constant. Once in talking with my dentist I asked him if he had suffered from the high cost of living. He said he had. I asked him, "Has it affected your supplies?" He replied, "Yes." I said, "Your gold, for instance?" I was joking, but he did not seem to notice it, and he had not kept track himself, and he sent his clerk into the next room to find out what had happened to the price of gold. She came back and said it was almost the same as it had been for 40 years that he had been in business.

He said, "That is surprising. Gold must be a very stable commodity." I said, "It is just as surprising as that a quart of milk is always two pints." He says, "I don't get you." I asked him, "What is a dollar?" He replied, "I don't know." I says, "That is the trouble. One dollar is one-twentieth of an ounce of gold, and therefore gold is worth \$20 an ounce, just as there are 2 pints of milk in a quart, therefore a quart is always worth 2 pints."

A gold miner can take a pound of gold to the mint and have it cut up into \$20 gold pieces and handed back to him and he thinks he has sold his gold at \$20 an ounce. He has merely coined it and got it back, and naturally he has got back the same quantity he handed in. So you have a fixed price of gold as long as you have a fixed weight of the dollar. But that does not mean you have a fixed value of gold.

If we took something else as a standard, the same thing would be true. If we called a dozen eggs one dollar, eggs would always be a dollar a dozen; and if the hens did not lay the price of eggs would not go up, but the price of everything else would go down, and if the eggs were a drug on the market the cost of living would go up and people would be wondering what was causing the high cost of living.

Supply and demand gets its work in in one way or another, and if it can not affect the price of gold it will affect the price of everything else; and that, I think, most economists agree is the primary cause for these price movements that we suffer from.

It would help us to understand this if we could look at it from the viewpoint of other countries and see ourselves as others see us. It is the foreigner who has a different monetary standard from ours who can understand, he thinks, why our prices have moved in a certain direction; and we, on the other hand, can explain, we think sometimes, why prices have moved differently in China from what they have here.

Between 1873 and 1896, as I said, prices rose in silver-standard countries and fell in gold-standard countries. And it was then said

in London: "Of course, we can understand why prices in China have risen. It is from the depreciation in silver." But the Chinaman would say the opposite: "We can understand why prices have fallen in London. It is because of the appreciation of gold." They were both right, generally speaking.

Sir David Barbour in his book on the standard of value mentioned an instance of that kind. He shows a merchant in India who was surprised when he was told that there had been a serious fall in the value of the rupee. He said he had not heard of it. He said he had had his agents in Calcutta every week and none of them had said anything about the fall of the rupee; and, after a pause, he said: "They did mention the rise in the price of gold, and perhaps that may be what you are thinking of." He was thinking in terms of rupees, and therefore to him it was the price of gold that had changed, whereas the Englishman, thinking in terms of the pound sterling, would blame it on the rupee; and in that each can see the other better than he can see himself.

Now, the way in which this inflation operates is so subtle that it is very hard for any one of us to follow it. The price of butter in the corner grocery goes up, and you ask the corner groceryman why the price of butter has gone up, and he says it is because he has to pay more for his butter. Well, where does inflation come in? It comes in at every stage. It comes in partly right there at the corner grocery. The men who buy the butter have a little more money than they had before and spend it a little more freely if there is inflation. That would explain perhaps a fraction of 1 per cent in the price that he is able to make for his butter, but he is quite right when he attributes 99 per cent of it in the rise of the price of the wholesaler to him. But when you go back to the wholesaler and ask why his price has risen he will say the jobber has raised his price on him; but 1 per cent of the explanation can be nailed right there to the wholesaler. It is because there is more money in circulation among his customers, and only 99 per cent or 98 per cent of the total can be paid to the manufacturer.

And so on, as you go back and back. If we had a microscope we would always ascertain 1 per cent that was due to inflation, and it would add up 100 per cent when you got through, and all this circular explanation, where one is laying the blame on the other fellow, would gradually be eliminated, very much like a boat on the tide. It rises and the man in the boat can not see what has raised the water, but it is the increased volume.

Now, the third question is, What of it? What are the evils involved? And this comes closer to the particular problem with which you are dealing. I hope I am not going too far afield, and I hope the chairman will not hesitate to tell me if he thinks I am. But, to my mind, this problem can not be solved by treating electric railways alone any more than you can solve the electric problem separately in New York City from the rest of the country. It is not a local problem; it is not a particular industrial problem; but it is a world economic and monetary problem.

Some people would be inclined to say that the rise of prices is really simply the depreciation of money. If prices are now twice as high as they were before the war simply because we have a 50-cent

dollar, so to speak, then it ought to make no difference to anybody, because if everybody has twice as much money and every price is doubled nobody is better or worse off. And, in fact, that is true if the premises were correct. The trouble is the premises are not correct.

In this upheaval there are some things that can not step lively as the other things do; some things that lag behind. All those things that are fixed by contract—if there is a contract price, it must be kept, even though it would naturally be raised. If there is a law or a franchise fixing a 5-cent fare it can not be changed with the inflation which changes other prices. If a Government clerk has a salary of \$2,000 it is not going to change as the prices of wheat change in the market; it will stay unchanged for years at a time. If a wage earner has a certain wage scale it will not be adjusted automatically to the change in the cost of living. And there is where our great industrial problems come, and I think Lord d'Abernon is near the truth when he says 80 per cent of our unrest to-day is due to the depreciation of money and the maladjustments that have come from that. These are far greater than have generally been recognized.

For instance, consider a savings-bank depositor. Take a working girl who puts \$100 in the savings bank just before the war. Now she will have about \$120, but when she comes to spend that \$120 she will get for it only 60 per cent of what she could have gotten if she had spent her \$100 four years ago. So she has really been cheated out of all her interest and 40 per cent of the principal as well by the depreciation of the dollar.

Now, the fault is not in the groceryman or the tradesman from whom she buys the high-priced goods; it is not in the savings bank; but it is in the dollar, in terms of which her account has been kept. There has been a wrong yardstick used in measuring her accounts and the accounts of the rest of us.

In the same way a bondholder has not been getting any real income since 1896. That is a startling statement to make, but it is absolutely true; and the fact that it is not appreciated is simply due to the fact that people do not talk in terms of monetary depreciation when they ought.

But you take a widow who was left, say, a fortune of \$100,000 in 1896. This is invested in 4 per cent coupon bonds, and she cuts her coupons and gets \$4,000 a year and lives on it between that time and this. As a matter of fact, she has been eating up her capital, and that is all she has been doing, because while nominally she still has \$100,000 of capital, that to-day is only one-third of the capital with which she started, in actual purchasing power. She has used up two-thirds of her actual purchasing power in this time.

And so it is that bondholders have not been making any money since 1896. They are among the ones who have been losing money. On the other hand, between 1873 and 1896 it was the bondholder who was getting rich because of the appreciation of the dollar in terms of which his bonds were reckoned.

On the other hand, the stockholder—excepting the stockholder in concerns like electric railways, where the price of the product is the thing that does not change—the stockholder has been winning what

the bondholder has lost, and losing what the bondholder has gained. Between 1873 and 1896 the stockholder was losing and the independent producer generally was losing, the farmer was losing; and that loss made a grievance which culminated in the Bryan campaign in 1896, which was largely a Populist and farmer discontent. The debtor class was much mentioned there. People who had farms which were mortgaged could not pay their mortgages because the mortgage was a millstone around their neck and getting heavier and heavier while the price of wheat was going down. It was really the appreciation of money which was ruining the farmer, and that produced a form of discontent at that time called Populism, which died down as the price turned the other way, and you can not find a Populist in Kansas to-day because the conditions which generated that condition have disappeared.

Now we have the opposite situation, and we find the bondholder and the savings-bank depositor is losing, the salaried class is losing, and the utilities corporations, like electric railways, are losing; and the gain is being absorbed by the stockholder, and we are dubbing him the profiteer. Just as in 1896 we nicknamed the bondholder the "bloated bondholder" and complained of him, so now we are nicknaming the man who gets the gain "the profiteer."

Commissioner MEEKER. You are not including the stockholders in the street railways among the "bloated profiteers," are you?

Mr. FISHER. Not the street-railroad companies, but I think the stockholders in general are the so-called profiteers to-day. The profiteering to-day, which we hear so much of, is one of these consequences of this maladjustment, and not because of the price level. They are the by-product. And I lament the fact that the public eye is fixed so much on this to-day as to cause a class hatred which is not justified, instead of a realization of an impersonal cause as the true reason. I do not mean that there is not criminal profiteering. There is, or I suppose there is, but it certainly is not responsible for this rise in prices.

This has switched billions and hundreds of billions of dollars worth of wealth from one class to another. You will find on Fifth Avenue, I understand, an entirely new class of rich people to-day compared with what were there at the end of the long period of falling prices. In 1896 there were the old Knickerbocker families with their property invested in bonds who were having a comfortable home and living at the low prices very well, but they could not stand the gaff when prices began to go up. They did not see that their money was depreciating and so they were losing all their income. They expressed it in terms of commodities but not of money, and they realized they were losing, and they sold out to the stockholders—the profiteers.

Now all this appears in the price level, and the purchasing power of money introduces a great confusion in our accounts. I noticed, for instance, the last witness here gave some figures which I do not doubt were entirely correct as he gave them, but which were very misleading, and doubtless, I assume, were not intended by him to be misleading; very likely he did not realize them. He spoke about the income which the investor in street railways was getting to-day and tried to make out that he was getting a fair return on his investment.

Now, if 6 per cent was a fair return on a company which was capitalized before the war at a certain amount, 12 per cent is a fair return to-day on that same capitalization, because the price level has doubled. Twelve per cent to-day is only 6 per cent on the basis of a recapitalization in terms of our present cheaper dollar, our 50-cent dollar. That is, he made the mistake of counting—suppose a concern was capitalized at \$100,000,000 before the war and is earning \$6,000,000 to-day, he says that is 6 per cent; but it is not 6 per cent, it is only 3 per cent. \$6,000,000 to-day are 6,000,000 little dollars, and he is taking the ratio of 6,000,000 little dollars to 100,000,000 big dollars. He either ought to recapitalize in terms of present prices, which one of the members of the commission suggested—calling the capitalization two hundred millions in terms of modern purchasing power, in which case he is getting six millions at 3 per cent—or he ought to transplant his 6,000,000 little dollars to-day into the big dollars of the prewar period, and they would be only 3,000,000 of those big dollars.

To show clearly this shift, suppose—to go back to an ordinary case of a stockholder and bondholder in a corporation that does adjust the price of its product quickly and easily, an ordinary industrial corporation—suppose it was incorporated for \$2,000,000, 1,000,000 in stock and 2,000,000 in bonds, before the war; and suppose, to take simple figures, that the income is 5 per cent on both of those: That would be an income of \$50,000 to the bondholder and \$50,000 to the stockholder. To-day if the prices of this concern have been doubled, as other prices have been, and the cost of producing labor and materials has also doubled, the profits of the concern will also be doubled, and the total income will be, instead of \$100,000, \$200,000; but the bondholder of this \$200,000 will no longer get half, he will still get the \$50,000 which he is entitled to under the terms of his contract, and that leaves \$150,000 to the stockholder, who gets therefore three times as much, the bondholder getting one-half of his value, getting nominally the same value and the stockholder getting three times the nominal value that he had before, \$150,000 instead of \$50,000. And if the stocks were sold on that new basis, the stocks ought to go up three times, they ought to be selling at three times what they were.

Now that is called profiteering. It is a necessary consequence of the change in the price level, but it is not the cause of the change in the price level. I did not mean to take up so much time, and I am trying to skip as best I can and still get in the points I wish to lay before you.

Commissioner GADSDEN. Could you, for the purpose of the record, apply that reasoning to the nickel fare of the street railway?

Mr. FISHER. Yes; I intended to do that when I spoke of a 6 per cent return on an old capitalization not being fair to-day. Twelve per cent return ought to be the fair return if 6 per cent were fair before, and the fare ought to be—to go back to 1896, if the fare of 5 cents was right in 1896, and if the prices and labor and materials in general have averaged to keep pace with the general rise of prices—that is, have trebled—then the corresponding fare to-day would be 15 cents. If, on the other hand—I do not mean to say that that is what the fare ought to be, because 5 cents may not have been

the right fare in 1896—I do not know anything about the street-railway business in particular, and I am not talking about it in particular, but just about this general subject which is, as I believe, the main factor in this particular case as in so many others—well, if 5 cents is a fair fare to-day, then in 1896, provided the prices of labor and materials were proportional to other factors, a fair fare would be about 2 cents.

Now, I do not know anything about the labor and materials. You men, of course, are going into that and will inform yourselves whether there have been improvements justifying a lowering in fares or not, and whether the fare was excessive in 1896. But there would be naturally a triple adjustment to put one's self in the same position if this industry is typical of industries in general.

Commissioner MEEKER. Just there, Prof. Fisher, in regard to a 6 per cent return and a 12 per cent return, the interest upon capital, of course, is determined by factors that are more or less independent of price levels; is not that true?

Mr. FISHER. Yes.

Commissioner MEEKER. That is, we might have a decrease in interest rates with an increase in the level of prices.

Mr. FISHER. Yes.

Commissioner MEEKER. That has occurred?

Mr. FISHER. Yes.

Commissioner MEEKER. At certain times, historically?

Mr. FISHER. Yes.

Commissioner MEEKER. If we were going to give a 12 per cent return upon a bonded debt—will you explain how you would bring about a readjustment; granting that the purchasing power of the income of a bondholder has been cut in half, how would you bring about a readjustment, so that its purchasing power might be preserved and also the capital investment preserved? Because, if you double the income that he is to receive—well, will you expand on that?

Mr. FISHER. Are you referring to the bondholder or stockholder?

Commissioner MEEKER. I mean the bondholder now.

Mr. FISHER. I do not think anything could be done for the bondholder now. You have to keep your contracts and get your pound of flesh and—

Commissioner MEEKER. I misunderstood the reference which you made.

Mr. FISHER. But with the nickel fare unchanged, which is now worth one-third in purchasing power of what it was in 1896 or one-half of what it was before the war, I suppose you have the chief explanation for the bankruptcy that has been going on, and the fact that the stock of these public service corporations, according to Mr. Babson, has gone down to a quarter, on the average, of various stocks of this country, of what they were before the war, and the natural remedy, I should suppose, would be a raise of fare.

Mr. WARREN. In other words, the stock of a public utility with a limited income is very much like the bond?

Mr. FISHER. Yes; the stockholders in a public-service corporation are really in the same position as the bondholders in an ordinary corporation. I am so accustomed to express it in terms of the bondholder, because I am thinking of the typical corporation, that this

exceptional case that you have to deal with is not perhaps adequately emphasized.

Commissioner GADSDEN. On a larger scale is not your position proved and substantiated by the fact that of all the phases of human effort, all lines of activity, commercial, industrial, and otherwise, the only ones which apparently have suffered during the war, we will say, are those the prices of whose product have been fixed by law?

Mr. FISHER. Yes; fixed by law or contract.

Commissioner GADSDEN. Steam railroads, telephones, telegraph, gas, electricity, and street railways; everybody else has profited, if you want to put it that way.

Mr. FISHER. Bondholders, teachers, clerks, and to some extent wage earners.

Commissioner GADSDEN. Yes.

Mr. FISHER. Now, this produces a kind of social injustice. While, of course, we have to keep our contracts literally—you can not make an adjustment after you have made a contract—it remains true that there is a grave social injustice done where money has depreciated to the salaried man, the bondholder, and the investor in street-railway industries, where the fare is fixed by law, franchise, custom, or contract.

Mr. HALL. May I ask just one question, Mr. Chairman?

If the purchasing power of a dollar has been so decreased, which we all concede that it has, why is it that, speaking of the return alone in and of itself, the people all over the United States are ready and willing to take up Liberty bonds, going to the hundreds of millions, at 4½ per cent, speaking simply of the return—not of the stability of the security—but from the standpoint of return?

Mr. FISHER. Primarily because the investor can not tell which way the cat is going to jump. He is speculating on the dollar whenever he invests, but he does not know what is going to happen to him.

Commissioner MEEKER. Prof. Fisher, have not I indicated the answer to that—that the rate of interest is more or less independent of changing price levels?

Mr. FISHER. Yes; but as I understand it, the question is if bonds are so bad an investment and have been since 1896, why do people invest in bonds?

Mr. HALL. Yes; speaking from the standpoint of the rate of return, not from the security standpoint.

Mr. FISHER. Yes. They have not had any return, they have had a minus return. There has not been any return on bonds since 1896. I made that point.

Mr. HALL. Yes; because you say—

Mr. FISHER. They have had a nominal return, but a real loss. But they did not know it when they invested, or they would not have invested. Really every investor is speculating in the dollar, in gold, when he invests, because he takes a chance of what the dollar will buy when he gets it back.

Now, there are people who have taken this into account to a certain extent, and business men in general finally get a notion that prices are rising or falling; and when prices are rising they say "Bonds are not a good buy," and the consequence is they hold off and buy stocks instead, and that lowers the price of stocks and raises

the bonds, whereas to the investor in the bonds that is a partial compensation for the raising price level, or decreasing dollar. And if it were scientific or perfect there would be a way to recoup one's self in an investment. It would amount to this: When prices rise, when the price of the dollar is depreciated about 1 per cent, then the rate of interest would be raised 1 per cent to compensate for that depreciation.

But it does not work out as it should, according to this theory; which shows that people do not forecast, but when they to-day buy them, assuming a dollar is a dollar and is going to stay a dollar, there is where the evil comes in; and when they do get stung later they do not attribute it to this cause, which they should attribute it to, but to the machinations of Wall Street or some profiteers, or some particular reason—cold storage, or whatever it is—that has nothing or very little to do with it; and then they are very angry at something which ought not to bear all the brunt, at least, of their rage. And the most dangerous kind of discontent is when a person is hard hit, but does not know what has hit him, because then he turns around and hits in all directions and will do sabotage and break windows, upset the goods of the innocent groceryman, and do all kinds of things. And I believe our bolshevism to-day, which is spreading throughout the world, is the product of this long period of rise in prices in just the same way that Populism was the product of the long period of falling prices. And if we could stabilize the dollar this bolshevism would die out in a few years, just as Populism died out when the price level stopped falling.

The CHAIRMAN. Your argument would eventually reach the conclusion that at a time when money is at its lowest purchasing value the investors should put their money in bonds?

Mr. FISHER. Yes; that is, when a fall of prices is impending you should invest in bonds. When you know prices are going to rise, invest in stocks. That is very good advice.

Commissioner MEEKER. All you have to know is to know.

Mr. FISHER. Yes; all you have to know is to know.

Mr. WARREN. Won't you give us a little tip on the side, Professor?

Mr. FISHER. Yes; this is my tip—that we stabilize the dollar, so that we can know. We ought to have a dollar that we can depend on and that we do know instead of a dollar that we do not know. It is this uncertainty in business that is producing all this distress and producing this particular distress that has caused the appointment of this commission, and it is causing the excitement about the high cost of living, industrial discontent, and class hatred.

Now, it is easy to stabilize the dollar, and plans for that purpose have been drawn up. They have been associated with my name too much, as a matter of fact. Many others had independently reached the same conclusions, one man back as far as 1824. Simon Newcomb, of this city, perhaps the most distinguished scientist this city or this country has produced, devised precisely the same scheme that I am advocating, and on which I am writing a book, the manuscript of which I have before me—a plan by which we can keep a stable price level. There would be no necessity for the appointment of this commission, there would be no high-cost-of-living problem, no problem

of the bankruptcies when the fall in prices comes to the farmer, none of these great problems, so many of which grow out of this constant change in price levels. As I have occupied so much time in other ways I feel that you want to get at the next witness, and I will therefore make very brief the description of this plan, or leave it out altogether, just as you like; but I would strongly suggest that you go into it, because I believe you are after remedies and I believe you want to get vital remedies and not superficial remedies.

You do not want to have something variable to regulate cold-storage plants or get a municipal market in New York to regulate the price level throughout the world. You want to treat the problem according to its diagnosis as a problem in the depreciation of money; and therefore you should recommend that money should cease to depreciate or should cease to appreciate, either, and could remain stable; and it is just as easy to make it stable as to leave it as it is.

I might say before I describe this plan that it is not only not new in conception but it has not altogether got to run the gauntlet of expert opinion—it has already done that. For several years it has been before the economists, and the economists of the country have almost unanimously indorsed it to-day. They did not at first, but found a lot of fault with it. Some 50 objections have been raised, all of which have been answered, and a committee of the American Economic Association last year was appointed, consisting of the five men in this country who have made the chief studies on this subject, and they universally recommended that the dollar ought to be stabilized, and that statesmen and business men and economists should take the subject under immediate consideration. The idea has been indorsed—the plan has been indorsed—by not only the chief leading economists but by many important bankers, like Frank A. Vanderlip, who went over it very carefully and looked into all the objections, spending several hours with me on the subject; John Perham, the chief banker on the Pacific coast; Henry Lee Higginson, in Boston; and numerous other bankers and important business men like John Hays Hammond and John Forgan; and important organizations like the Bridgeport Chamber of Commerce, the Waterbury Chamber of Commerce, the New England Association of Purchasing Agents, and others. So it is not altogether a new subject, although no attempt has yet been made to bring it prominently before Congress.

The CHAIRMAN. Now, what is this plan?

Mr. FISHER. This plan in brief is this: We now have a dollar which, as we have seen, is variable in purchasing power, because it is fixed in weight. We want, therefore, a dollar which is invariable in purchasing power and therefore variable in weight. The variations in weight to be made, not capriciously or at the discretion of any official but by rule—by the use of index numbers.

We now have an instrument for measuring and therefore for regulating the dollar which we did not have until recently. And I believe historically a thousand years from now, when we look back on these barbarous times when we have an unstabilized dollar, people will explain it in that way and will say it was only a little while before the dollar was stabilized—that people had any way of doing

it, an instrument for measuring it. We never stabilized the pound until we had the scales; we never stabilized the kilowatt until we had instruments for measuring it; and we could not stabilize the dollar until we could measure it; but we can measure it now and can stabilize it by the use of the index numbers.

For instance, if we should try to stabilize prices where they are now—I would not for a moment suggest that we go back to prewar levels; I hope we would not; I do not think we shall, but it would be the greatest misfortune if we should—I doubt even if electric-railway conditions would be improved, because general conditions would be hurt so much. I believe we should level up and not down. As I said in Boston in 1915, wages ought to be leveled up to the cost of living, rents ought to be leveled up to the cost of living, and fares ought to be leveled up to the cost of living, and everything ought to be leveled up to the cost of living. But you get your price level and keep it there.

So suppose we adopt the price level as it is to-day, or very close to it; perhaps 5 or 10 per cent below it. There ought to be an expert commission to determine where we should start off, and I am not going into that; but suppose we start off somewhere near where we are, which I think we ought to do, and call that 100 per cent.

Now, suppose at any future date that the price level happens to be 101 per cent—that is, is 1 per cent above par, 1 per cent higher than it ought to be according to our scheme—that would be the signal and the authorization to the Secretary of the Treasury to add 1 per cent to the weight of the dollar. Now, that might not absolutely bring the dollar back to par, but it would tend in that direction; if it did not succeed and if a couple of months later when the next adjustment is to be made or the next index number is figured, it is found to be still 101 per cent, that is again the signal and authorization to add another 1 per cent to the weight of the dollar. And if it persists in being even a little above par, it is loaded and loaded and repeated—every two months, I would say, to have a periodic reckoning—until it is pushed back; it gets heavier and heavier until it weighs an ounce or a pound or a ton, if necessary, and if a gold dollar weighed a ton I think it ought to buy more than it does now; but long before it weighed very much more the price level would be reduced. And if the price level swung the other way, to, say, 99 per cent, you would unload the dollar 1 per cent.

I ought to have begun by taking something that you will all admit. The Mexican dollar is half of our dollar in weight, and, as we all know, on the other side of the Rio Grande the prices are twice as high as they are on this side, in Mexican dollars. They have to be, as they are a half-dollar dollar. If the Mexicans should adopt our dollar what would happen? Of course, prices would immediately be cut in two in Mexico. They would be brought under the American or Canadian standard. Canada has the same weight dollar we have. On the other hand, suppose we should adopt the Mexican dollar and should cut our dollar in two; then we would double our cost of living again; the price level would be double as a consequence.

If you admit, at any rate, that the increase in weight of the dollar decreases prices, and the decrease in the weight of the dollar in-

creases prices, you have the mechanism for stabilizing the dollar, and it is a very simple mechanism, and all the objections can be easily answered. I do not doubt many of them spring into your mind at once when you are asking, How are you going to change the weight of a dollar? You are thinking of a mint dollar, but the mint dollar does not exist to-day to any considerable extent, and there is no reason why it should exist. We could omit the mint dollar and still the gold standard would exist.

Our gold standard operates through the buying and selling of gold bars. The gold miner or the importer brings gold, gold bars, gold coin, any old thing that is gold, if it is standard, and he can deposit it with the subtreasury of the United States and get gold certificates for it at the rates of \$1 of yellow backs for 23.22 grains of pure gold. That is at the rate of \$20.67 an ounce for the gold.

On the other hand, the exporter or dealer can go to the subtreasury with the yellowbacks and get them redeemed—in other words, buy gold with them at the same rate of \$20.67 an ounce, or 23 grains of gold per dollar. That is the operation of our gold standard to-day, and that is all there is to it. Gold flows in from the mines and imports, and paper is taken in its stead, the gold being deposited and the paper circulates as its substitute. Gold circulates in this country only by proxy, practically.

Then, on the other side, gold is taken out for export or for the melting pots of the jeweler by the inverse process. Those two things are inflating and deflating our currency all the time. And it is because of the inflation being so great while imports during the war were taking place that we have had the high cost of living in this country. It is a secondary effect of the war which all neutral countries felt.

We just placidly let the gold flow in and out at \$20.67 an ounce, instead of varying it according to what it is worth. When I say we raise the weight of the dollar, it is the same thing as saying we lower the price of gold.

At present the Secretary of the Treasury is instructed to buy and sell gold at a fixed price always, no matter what it is worth. It is obviously a silly way of regulating the standard on which all the contracts of the world depend. You would not ask the corner grocer always to sell sugar at a fixed price. Gold ought to be bought and sold at a price regulated by the index number. When gold goes down, it should be marked down, and when it goes up, it should be marked up. It could be done by the index number. When I speak of enlarging the gold dollar, I do not talk about coining, but about lowering the price of gold bars.

Commissioner GADSDEN. Would not that work great injustice on the creditors of the world?

Mr. FISHER. You mean if we started on the present price level?

Commissioner GADSDEN. They would loan out their money and get paid back in cheap money; would they not?

Mr. FISHER. It would work no more injustice than is already worked.

Commissioner GADSDEN. They have a chance now, have they not, to get a run for their money?

Mr. FISHER. Well, they have a mighty slim chance.

Commissioner GADSDEN. But they have it, or they think they have. They think that in 15 or 20 years they will get a run for their money.

Mr. FISHER. That is perfectly true.

Commissioner GADSDEN. Take all the Governments who have borrowed their people's money—real money—would it not be paid back in depreciated money?

Mr. FISHER. Put it this way: It would galvanize the injustice on old contracts which now have been wrought.

Commissioner GADSDEN. Forty and 50 and 100 year bonds?

Mr. FISHER. Yes.

Commissioner GADSDEN. Government bonds?

Mr. FISHER. The Government bonds are all floated at the high price level.

Commissioner GADSDEN. Lots of them are out on the low level, are they not?

Mr. FISHER. Not in this country.

Notice in that curve over there on the chart—the price level has not risen much since we entered the war, and the average price level of our bonds—if I remember right; I worked it out; I have it here—is 180, about.

Commissioner MEEKER. That is, bonds purchased at the price level of 180 per cent?

Mr. FISHER. On the average, on the basis of 1913.

You remember after the Civil War we had the same problem when we were talking about resuming specie payments; and somebody finally said—I think it was Sherman—that “The way to resume is to resume.”

You have got to cut the Gordian knot somewhere. Somebody is losing, or has lost. You can never reach him. You will never compensate him by going back to the old price level. You will never catch the man who has lost. Somebody else will get a loss now, and a new wrong or social injustice will happen; and two wrongs do not make a right.

Commissioner MEEKER. Don't you think that the bondholders stand in more danger of a further loss through additional increases in prices than they will to gain by falling prices?

Mr. FISHER. I do. As a matter of fact, I do.

I had a lot of data on that subject, as to what will happen to prices here, but I am afraid that is a little too far away from your subject.

The CHAIRMAN. Your belief is that the present price level is here to stay for some considerable time?

Mr. FISHER. Yes.

The CHAIRMAN. And, therefore, if these utilities are in a critical condition due to increased costs of material and supplies and wages, that there is not very much hope of an early reduction in those prices and in their operating cost?

Mr. FISHER. Exactly.

The CHAIRMAN. Your conclusion is that there must be some remedy found which will galvanize these particular industries and permit them to do service?

Mr. FISHER. Yes; and while I think the primary remedy for this particular case will probably be found in the rise in the fare, there

ought to be a general adjustment of all the things that have not been adjusted to the new level yet, and the fares among other things should be adjusted.

I think that in order to prevent a recurrence of this problem 20 years from now or 5 years from now, we ought to stabilize the price level and have, for once, a really scientific money and unit of money, which is standardized as every other unit is standardized; and it would have in this particular industry the effect of encouraging investment. Where investment has been hesitant and always will be hesitant when it has been stung several time—I think there have been sometimes as many as three reorganizations of these concerns because of the rising prices. Mr. Babson was telling me that that was so last night. He said he had made some study of this. The investor is getting rather timid about going into a thing of this sort where the nickel is the conventional, fixed fare.

I remember talking with Mr. C. W. Barron, owner of the Wall Street Journal, some years ago, before the war, on this subject. He said that he had a talk with Mr. Mellen, president of the New Haven Railroad, and Mr. Mellen had told him that he had just purchased a number of electric railways in New England at a certain price—I have forgotten what it was—but I think it was \$30,000,000. And Mr. Mellen said: "I think it is worth a good deal more than that. What do you think, Mr. Barron?" And Mr. Barron said: "I think that depends on the South African gold mines." Mr. Mellen said: "I do not understand what you mean." Then Mr. Barron pointed out to him that you have a fixed fare of 5 cents that you will not be able to adjust to a change in the purchasing power of the nickel and that is at the mercy of the conditions of gold mining and of other things that may affect it. You see, we have had our monetary standard the football of the cyanide process, gold discoveries, bank issues, issues of paper money, wars abroad, the particular policies adopted by particular statesmen, etc.

If we had had a stabilized dollar before the war, this influx of gold would not have hurt us. We would let it flow in, but we would have raised the weight of the dollar so that we would have had a smaller number of dollars than we have—about the same number that we had at the time of the war—but heavier dollars.

As a matter of fact, Holland did something a little like that. They put a stop to the import of gold, and Spain did something like that also.

Those are the two countries which did try to defend themselves against this golden flood.

The CHAIRMAN. Did that stabilize prices over there?

Mr. FISHER. To some extent; yes. It had a very curious effect also in making their paper money at a premium with gold. It is one of the few cases in history where paper money has been higher than gold.

The CHAIRMAN. The commission is very much obliged to you, Prof. Fisher. We thank you for coming.

(Witness excused.)

The CHAIRMAN. Who is your next witness, Mr. Ogburn?

Mr. OGBURN. The next witness is Mr. Grenville S. MacFarland.

STATEMENT OF MR. GRENVILLE S. MacFARLAND.

MR. MacFARLAND. Mr. Chairman and gentlemen, I do not think that I can contribute very much to the discussion. I do not think I would have come had the chairman not thought that possibly I could say something that was worth while.

It seems to me that this problem involves fundamentals and not details, and that it is going to be solved by the social and political prejudices that are involved in it rather than by a scrutiny of the history of the companies and of the financial transactions behind the companies, except so far as a consideration of the history of those transactions has already given us points of view.

I think that it resolves itself into two fundamental and divergent plans of relief—one the so-called cost of service, with government relief immediately by extension of credit and indirectly by increase of fares, and the other by practically the same methods temporarily, but with a fundamental change in operation and in the character of ownership; that is, public ownership and operation. I mean I do not think that the commission will be very much affected concerning those two questions by its examination of the record. We have all general information; the record is practically closed, and the general information which gives us our points of view on that question is already in our possession.

I suppose that the naturally conservative man, who opposes all changes, would be like the committee in the Ohio town which refused to allow the promoters of a railroad to have the public called to discuss the advantages of bringing a railroad to that town upon the ground that it was perfectly absurd to think that anything that made so much noise and could go so fast was ever contemplated by God, and certainly was not mentioned in the Bible. And in the same way the people of several counties in England resolved against the building of a railroad through their county on the ground that the noise of it would prevent hens from laying and would affect women in delicate condition. And the same sort of opposition arose in Berlin when the proposal came to light the streets. They had all kinds of queer objections to lighting the streets. Fundamentally the same objection ran through them all—that it was a change—and some men are so constituted that they would rather suffer the ills they know than the ills that they do not know. They are very much afraid of dangers in the dark.

Now, Prof. Fisher gave us an educated guess as to what the condition of prices, what the price level in this country was to be in the next few years, at least during the period beyond which this discussion will not relate; and he said that the prices will not go down. That means, of course, that there is not any remedy which the railroads can perceive which will help them that does not involve an increase in their revenue. I think that is to be accepted as a fundamental proposition. They have got to have an increase in their revenue in some way. The question is—whether they are to have it under the old private management, and with what I personally believe to be its very, very serious evils, evils that are not only serious economically and financially, but still more serious politically.

Personally, I would rather see the community suffer some loss, some economic loss, on the assumption that the opponents of public ownership and operation are right, that public operation would involve some economic waste, some inefficiency. I would rather see that loss occur than to see continued the old practices of the public utilities under private management, which I think are inherent in the situation, as they are based upon human nature in its operation upon the relations of men performing a public function for private profit.

I do not think there is an example in the world, from the most ancient records in the Old World, and in the ancient times down to the present day that does not show an abuse which indicates the inherent difficulty in attempting to make a private property out of a necessary public function.

You remember what an awful situation grew out of the practice of the Romans to farm out the collection of taxes. Of all the abuses which grew up under the Roman Republic in later days none was so great, so intolerable, as the abuse of the farmers of the taxes. Just as has been the case with the abuse of private management of public utilities, it involved men of distinguished names, men who in private life probably would not have been guilty of mean and dishonest transactions.

The other day I read a letter from Cicero to one of his friends in Rome when he was proconsul in the East, complaining of the terrible abuse of power by Brutus in that respect, the methods by which he collected taxes, so that he could fill his own private pocket, as well as get the revenue for the government—oppressive foreclosures for the taxes, in order to get property values that were far in excess of the government's demand for taxes. It was an abuse that was widespread—universal. All of them indulged in it. It was so great that you remember, in the Bible, Christ was almost stoned by the population because He dared to speak to a tax collector; and one of the greatest miracles which He is supposed to have performed was the conversion of a tax collector, and making him disgorge some of his ill-gotten gains.

Yesterday I was in a southern State and talking with a banker; and our conversation happened to run upon a man who had made a very large private fortune not so long ago, and I asked him how he made it—he was a personal friend—and he said, "Well, he went down in a certain State—he went into a certain State and he bought up some lumber interests there, far from a certain railroad. Then he went to the president of that railroad, and he asked him to put a branch of the railroad down there, and the president said, very properly: 'I do not see that that would be justified by the business that would come to us.' 'Well,' he said, 'I will give you a half interest'—or, I think it was one-third interest, I think there was another man involved—he said, 'I will give you a one-third interest in the profits if you will get the road down there.' And he did."

Prof. Fisher has worked out a theory as to the cost of living's being based upon the fluctuation of the monetary exchange. That I do not challenge. I imagine that, as a general proposition, it is probably true. But its practical value, I guess, is limited by the

number of important exceptions which it has. For example, he has not told us the effect of such exceptions as I have just cited upon the cost of living—the building of a railroad without economic justification, for the private profit of a man who controlled its policy.

Not long ago I was counsel for one of the beneficiaries under a will, a man who had occupied quite a minor position in one of our railroads and had not occupied it very long. He was a man of very mediocre ability and education. He died worth over three-quarters of a million dollars. He was not worth a cent before he took that position. The heirs and legatees quarreled, and when we went to his box and examined his securities it became perfectly apparent that while it was a quarrel it ought to be compromised immediately. That transaction, of course, added to the cost of living. It is one of the exceptions. No explanation of the fluctuation of monetary exchange can explain that.

Again, I had a client some years ago who told me that he made nearly a million dollars out of rebates on a certain railroad, and that those rebates enabled him to get a monopoly in the community in which he did his business, and he shared the profits with an officer of the railroad.

Now, that added to the cost of living; because, of course, he got a monopolistic price for his products.

Prof. Fisher mentioned President Mellen, of the New York, New Haven & Hartford Railroad. That was an interesting fact, because President Mellen himself told me, not so very long ago, that he regarded the private management of railroads as one of the great explanations of the increased cost of living, and that it was wasteful and corrupt.

I might go on and cite almost any number of instances.

The Interstate Commerce Commission, for example, has found that about \$200,000,000 was wasted by the New Haven Railroad in a very few years. That is an addition to the cost of living.

The New Haven has increased its rates, not only because all wages have gone up, but because it has to recoup its losses, which have been shared, of course, by the community, the rate-paying community, and by the stockholders in their loss of dividends.

The Interstate Commerce Commission, I think, some years ago found that the income or the tax upon the unearned income of railroads would amount, if it were given to the railroads, to \$700,000,000 a year.

I noticed yesterday that Mr. Plumb, before a committee in Congress, alleged that the public grants of land to the western railroads alone, which had been largely capitalized, amounted in area to all of New England, New York, Pennsylvania, New Jersey, and several of the middle-western States—a domain which is greater than Great Britain or France or Germany or Austria or Hungary.

Now, those things add to the cost of living.

Looking at the situation merely from its economic standpoint, I believe that public ownership and operation is going to tend—it will be so slow that it will not receive the credit that is due it, I am afraid, if we do undertake it, for a number of years—but inevitably it will tend, by reducing the size of the grant, the volume of the grant, and its immunity in the private operation of these roads, to reduce the cost of living.

Of course, there is going to be graft in public ownership and operation. There will be graft somewhere always until you change human nature. In every so many men there are so many crooks, and so many men who are near crooks and who can assuage their consciences very easily; but the graft in public operation will be like graft in the Government service—it will be more or less, or comparatively petty graft; and occasionally it will be discovered and men will be sent to jail for it. It will never be in such proportions; it will never enjoy such immunity as will enable men to found great fortunes and great families and, instead of going to jail, go into society.

Commissioner MEEKER. Do you mind an interruption, Mr. MacFarland?

Mr. MACFARLAND. Not at all.

Commissioner MEEKER. Does Government service suffer, perhaps, through inefficiency as much as private service suffers through graft?

Mr. MACFARLAND. I think it suffers less through inefficiency. I think so. But I would not place a great deal of value upon that.

I again quote Mr. Mellen. He told me that private management of railroads was fearfully inefficient for the reason that under banker control the operating men do not have the freedom of action, do not have the right to operate the road according to their practical experience; that the road was run at the stock ticker and not as a transportation proposition.

Commissioner MEEKER. Do you think that public operation would be as efficient as private operation?

Mr. MACFARLAND. Yes; I think it would be more efficient in the long run if given time to stabilize.

Commissioner GADSDEN. Do you think it is fair to take Mr. Mellen's experience as typical of the railroads of the country?

Mr. MACFARLAND. Yes; I do. I think his experience makes him more of an expert than most others.

Commissioner MEEKER. I wish you would expand that idea of public efficiency in operation.

Mr. MACFARLAND. For example, nobody denies the efficiency with which the German Government operates its railroads. I think all people who have pretended to be disinterested have admitted that the foundation of Germany's great power, economic power, was in the use she made of her railroads.

Commissioner BEALL. Were not the rates on the German railroads higher before the war than they were in this country, with less wages and less construction costs and everything else?

Mr. MACFARLAND. No; that is not true. It is like not failing to make a distinction between nominal and real wages. The German cost depended largely upon the short haul. You know the cost of transportation is not in the haul. It is in the terminal charges.

Commissioner BEALL. I know.

Mr. MACFARLAND. The German haul was very, very much shorter, which, of course, directly affected the relation between the haul and the terminal charges. The terminal cost as compared with the total cost of transportation was very much greater in Germany than in the United States where the distances are greater.

More important than that is that the Germans, instead of suppressing their canals, developed them. Our railroads bought them up, or bought up legislatures that had the power to suppress them and did suppress them. It is only recently that we have come to realize the importance to the country, the well-being of the country, of the development of our canals.

Before the promotion of our railroads we had progressed further in the development of canal systems than any other country in the world. But after the promotion of our railroads and up to the opening of the Panama Canal we were probably the most backward in the development of canals than any other country in the world—any other comparable nation.

The Germans saw the economic advantage of the development of canals as the highways of low-grade freight, and owning their railroads, and, therefore, having no object in robbing Peter to pay Paul, they developed those canals for the purpose of transporting their low-grade freight. The low-grade freight taken off the railroads gives the railroads only the high-grade freight. If you took our low-grade freight from our railroads, you would see the average cost level go away up. It is the low-grade freight, which can be hauled—in which the time of haul is not important, and in which other features operate to make it possible to transport it profitably at a less rate—that affects those matters. If we took that low-grade freight out of our calculations of average cost, you would find a very different situation, and if you also took out the different relations between terminal charges in Germany and in this country, terminal costs, you would find the situation different.

Commissioner BEALL. Were not their passenger rates higher? I think they were. And their train service was not so fast, nor was the service so good.

Mr. MACFARLAND. I think the service was better; so much better with respect to safety that there is no comparison.

Commissioner BEALL. Yes; but when you say "safety," you are now falling back on the short hauls; are you not?

Mr. MACFARLAND. No.

Commissioner BEALL. If you take the number of passengers carried, and also the distance, I think you will find that that is not quite correct.

Mr. MACFARLAND. I do not think so. I do not, of course, carry the figures in my mind, but as I recall it, the comparison was between not passenger per mile, but passenger. If it were passenger per mile, it might affect the result.

I am basing my argument not so much upon the economic side of the question, although I am perfectly clear in my mind that the advocates of public ownership and operation have the better of it on that side. I am basing it upon the danger to democracy which flows from the inevitable tendency of men performing a public function with private property to seek to control by undemocratic means the political power of the country.

Now, you gentlemen, all are men of experience in public affairs, and it is not necessary to discuss that. It is not necessary to say that the fortunes of the Rockefellers and the Vanderbilts and the Huntingtons and the Hills and the Morgans and Strathconas are

additions to the cost of living. I remember, and probably you all do, it was Adam Smith who spoke of a certain English nobleman, in his *Wealth of Nations*, who had 2,000 retainers. He kept them for his pleasure and the advantages of display rather than for any economical use. He said it was probably an exaggeration, but where there was so much smoke there must be some fire—the number of retainers must have been outrageous; and he discussed how that affected the cost of living, both in withdrawing these men from production, where they did do some work, and in changing the course of production, in producing things which cater to the appetite of the few and not to the average man and tended to reduce the cost of living to the few and increase it on the law of supply and demand to the remainder.

If I had my way and were obliged to admit all that the opponents of public ownership charge against the inefficiency of public operation, I would still, because I believe in government of and by and for the people, advocate public ownership.

Commissioner BEALL. Is it not true that in Europe as a whole, France, Spain, and Italy, that their railroad systems—I know they were in France and Italy—have been getting worse every year, even before the war? In the French Chamber of Deputies every year they have to increase the appropriation for the deficits of the French roads, and the same is true in Italy, and the populace were almost on the verge of rising against it, the costs kept going up, the service worse, and accidents more frequent. We are just speaking for information, you understand, but—

Mr. MACFARLAND. There are two answers. In the first place, the complaint was justified as general concerning the private roads.

Commissioner BEALL. Not in France.

Mr. MACFARLAND. Yes; in France.

Commissioner BEALL. Well, I think not; not from the statistics I have seen—

Mr. MACFARLAND. I do not pretend to speak authoritatively, but I think it was. And in the second place, a publicly operated utility, a public function, is not for profit, and as our post office does, a public function tends to perform a public service without reference to profit, and at times at a loss, if there is a superior public use to be found in it, in the judgment of the statesmen who direct its policy.

Now, our Government assumes there is a superior public use in carrying mail matter to the farthest reaches of the country, to the remotest and uttermost parts of the land at a loss, for the purpose of giving us an intellectual homogeneous people, for the purpose of giving us an intelligent electorate, keeping our people bound together by the exchange of communications, the exchange of intelligence. They transport magazines and newspapers for less than cost for the same purpose or the same theory.

In Australia they transport agricultural implements and other heavier freight for the same reason. It is impossible to compare public and private operation unless you know all the facts, economically and financially, upon which the comparison is based.

Now, take the point I was coming to when I was interrupted, on the matter of the German railroad: The German railroads were efficient; nobody denies that. Of course, the argument which the

opponents of public operation are always making is to attempt to confess and aver and admit it, but to say that our democracy is not capable of managing a great function like that as economically as the German autocracy is. Now, we have, nevertheless, managed our post office better. I do not think anybody who examined the story of our post office and compared it with that of Germany, or any other country in the world—unless, possibly, it is Australia; I am not sure about that—will deny that our Government operates our post office better than any other country in the world operates its post office. There is not any country in the world which could have handled that monumental job of constructing the Panama Canal as we did. There is not anybody in the world, or any country in the world, that has handled the war problems as efficiently as we did; and I do not think anybody denies that who is not a partisan.

We do a big task well. We may not do little things well because they do not attract public attention—they do not appeal to our imagination. The American people are the most tolerant people in the world of half-tolerable evils, but when a problem becomes so great, involves so much of the public interest that to be wrong in it is to be intolerable, we are the most impatient people in the world. We will not tolerate it, and we never have. And to be wrong in the operation of our railroads would bring such immediate commanding results, evil results, that I do not believe the American people would stand it for a moment, and I do not believe anybody would dare attempt it. I do not believe you would find, after you have made allowances for the mistakes, for the difficulties for a period of transformation and transition—I do not think you would find any trouble at all, relatively, in the operation of our street railroads.

Commissioner MEEKER. I wanted to ask about the post-office employees for an example. Their wages are sufficient, you think, for the kind of work they do?

Mr. MACFARLAND. I do not know. They used to be. The post-office clerk used to be the most intelligent of his class in the country, and was the best paid before the war, but recently—

Commissioner MEEKER. I do not wish to confine myself to a specific example, but what I want to get at is the general principle. In wage adjustments, do you think public management would meet conditions as readily as private management?

Mr. MACFARLAND. Yes.

Commissioner MEEKER. You think that salaries sufficient to remunerate the necessary managers and superintendents would be voted by the people?

Mr. MACFARLAND. Yes; and I think that when you once get public operation you will more or less change the standards of values in the country. You will get—public service won't be regarded with good-natured tolerance by alleged successful business men. There will be less tendency to measure a man's ability and success in life by his income. There will grow up a different and better and more democratic standard of things.

To-day, less so than before, but before the war—probably I should put the period back to 1910 (I think one of the great contributions that Roosevelt made was somewhat to change that situation)—but say 10 years ago and, to a great extent, up to to-day, we measured the

value, the importance of a man—we measured his ability by his income, whether it was deserved or whether it was not; and a business man who through accident or some adventitious advantage or merit, or whatever it might be—and it did not make any difference—the point is it made no difference whether it was by accident or adventitious advantage or by merit, so long as his income was great—he looked with good-natured tolerance and with considerable declivity of view upon the public servant who earned a smaller salary.

Now, I think the great good of public operation will be to change that considerably, change our social standards, so that public service will be considered important, so that a man's children will not say to him, "So and so's father has got this and that and the other—he has got a Pierce Arrow car and we have got only a Ford. Why aren't you as able as he is?" That is a strong appeal to a man. The children do not say it as bluntly as that, but children very often act it, and a man's wife does, too, and it tends to deteriorate the public service; it tends to make men seek money, money that does not give them a great deal of pleasure, because above the necessities of life, the pleasure that money gives you, and the satisfaction, is subject to a very, very great law of diminishing returns.

You have all probably heard of Tom Lawson. I was appointed as a special district attorney some years ago in Boston to prosecute a crooked operator on the market and Lawson was very much interested in getting him put away because that man was bear-baiting Lawson and had been for some time. So he sent word to me that he could give some evidence on this man; he had been making some investigation. And I had several long talks with him, and he proved to be one of the most entertaining men I ever met, one of the most charming conversationalists. And among other things he told me about the failure of money to give satisfaction. I do not know whether there are reporters here or not. If there are, I do not want to tell this story.

The CHAIRMAN. It will not be repeated if you make the request.

Mr. MACFARLAND. I do make the request.

The CHAIRMAN. This story will not be published. It will not be taken in the transcript.

(The ensuing narrative was not reported, as per the above request.)

Mr. MACFARLAND. That is a system, that is a false standard of values concerning men that has largely grown up in America—of course, it had an older origin in Europe with the old feudal system—but in America, out of the enormous fortunes which are made in a few years by men operating these public utilities. The Harriman fortune, \$80,000,000 in 10 years; Gould's, about the same amount in the same period; with all the accompanying political degradations out of which those fortunes were accumulated and through which they were accumulated. That is a standard that your public ownership will tend to destroy or to convert into a better standard and will give us much better public service, besides not threatening democracy through the control of public servants by these private manipulators and private managers, and the accustoming of the people to the fact that there is such a thing existing, that democracy is not a fact but only theory in the country; that there is invisible government and a few bankers in Wall Street can determine the course of legislation.

Now, the fact that we pursue the form of democracy is no proof that we have it among us, and it is no proof that sooner or later the form will depart.

You know that for at least three or four generations the Roman people after Augustus Cæsar believed they had a Republic, and the Emperors went through the forms of consulting the legislature, such as they had. It was not until we look back historically upon the fact and see that there was not any democracy, that the power was all in the hands of the Emperor, that we decide that the point of departure was with Cæsar, and we call it the Empire, and the Roman people did not. They called it the Republic, and decrees of the Emperors for several generations carefully acceded to that legend which was so important to the Roman people. And that is just the course that we are liable to follow. We accustom our people to the fact that there is not a democracy here and it will not be difficult finally to make them acknowledge that the theory has gone too, and the substance as well.

Commissioner MEEKER. There is another aspect I would like to ask you about. Do you think that under public ownership and operation the workers would have more influence and more voice in the management of business than under private operation?

Mr. MACFARLAND. Why, yes; in the sense that democracy would be more articulate, that it would function better, that it would not be controlled by a few bankers, it would not be pyramided as it is now.

Commissioner MEEKER. My own experience as a public officer leads me to believe that there is as much autocracy under government operation as obtains in private business.

Mr. MACFARLAND. Well, I think perhaps we are disagreeing merely as to terms and not as to facts. I take it that there is not a real autocracy when the people voluntarily and for a brief period, determined by themselves and recoverable by themselves at will, delegate power and absolute power to an agent or representative. For instance, I do not think there is any autocracy in the reign of Cincinnatus. When Cincinnatus was given the dictatorial power at a time when the Roman people were so violent in their relative democracy that they could recall him at any moment, and at a time when the simplicity of Roman life and patriotism of the Roman made it perfectly certain that Cincinnatus would return to the plow as soon as the period of his dictatorial service was over. While that is one kind of an autocracy, it is not the autocracy that we object to, it is not the antithesis of democracy; it is the highest expression of democracy, and it is the highest expression of confidence which democracy has and of its stability.

Commissioner MEEKER. I do not fear the autocrat, for I have a crack at the autocrat, but what I had in mind was the working relations. Take your street-railway employees, if we may come back to them—we have wandered somewhat. Do you think there would be better relations between the street-railway operatives and public managers than have often existed between the railway operators, the platform men, and the private companies?

Mr. MACFARLAND. I do not think there is any doubt about it. I do not see why there should not be. Under the old system with the

private operators controlling the sources of political power they were always the submerged tenth, except as the power of the strike gave them some influence. But now they may have both, assuming the propriety of allowing the power of the strike to continue against the Government, a question that I have not reached any conclusions on. I think it is full of doubt whether we ought to allow men to strike against the Government. But assuming that that power is to continue, they will have not only the addition of their greater political power as members of the community due to the greater democracy of the Government, but they will have the added power of the strike.

Then again there is another thing: The public is notoriously a generous paymaster and always has been and there is no reason why it should not continue to be, so long as the demands of labor, any particular class of labor, do not exceed what is fair, what is conceded to be fair.

Commissioner MEEKER. Well, is that likely to be a notoriety that may work for inefficiency and a vast system of transportation? You can have too generous and too easy paymasters.

Mr. MACFARLAND. Well, yes; you can be too generous, but I do not think you will find—I made a reservation there, that so long as it is not an unfair demand. For example, I am much interested to notice the treatment which the public in some cities have given what may or may not have been—I do not know the facts well enough to say—the excessive demands of policemen. The matter was referred to the public, and they were very, very severely turned down, if you can consider a large majority an evidence of severity. I do not think you will have any difficulty in getting justice for the employees so long as they do not undertake to get more than their fair share or dividend out of the general prosperity.

Commissioner MEEKER. Are you acquainted with the municipally owned and operated street railways in England?

Mr. MACFARLAND. At one time or other I have been. Those things do not last long in my mind, the details of them.

Commissioner MEEKER. Mr. Chairman, I would like to say for the record that when I recently visited Manchester I called upon the municipal authorities operating the various public utilities there and I heard from those men expressions regarding labor conditions that indicated an autocratic pressing down of the common wage working people in the municipally operated utilities that was more shocking, I will say, to me than anything I have known under private management, and that is the thing I am trying to draw out.

Will public ownership and operation, in your opinion, result in the better understanding or not? Will it result in acquiescing too readily to the demands of the men or, as I have frequently observed, result in keeping them down, in failing to grant wage demands and other that seemed to be very reasonable demands? Have you given much study or thought to that?

Mr. MACFARLAND. Well, take your English example: I take it that you did not consult the statistics relating to the pay which the street railways under private management and the English gas and electric-light companies under private management to the wages paid under public management. Now, the difference is very marked, as I recall it. It is one of the very first things—

Commissioner MEEKER. At the present time there is very little difference.

Mr. MACFARLAND. Well, it may be on account of the war but before the war the difference was very marked. I remember one of the very first things the city of Glasgow did when it took over its street railways was to increase the wages, not only to increase the wages, but to provide the men with uniforms free. They had had to provide their own uniforms before. And it made a very marked increase in wages. And you will find that the level of wages in the public utilities publicly managed in England is, or was five or six years ago, very much greater than in privately managed utilities, and there has been no complaint there so far as I recall that the public has been too generous with the men.

The CHAIRMAN. Have you completed your formal statement?

Mr. MACFARLAND. Yes.

The CHAIRMAN. Apparently you are of the opinion that this problem is social rather than economic.

Mr. MACFARLAND. Yes.

The CHAIRMAN. And therefore it is a question that must be settled by the people themselves?

Mr. MACFARLAND. I think so.

The CHAIRMAN. If your principle is good as to street railroads it must apply to the steam railroads as well.

Mr. MACFARLAND. Yes.

The CHAIRMAN. And to all other forms of public utilities?

Mr. MACFARLAND. Yes.

The CHAIRMAN. Thought has been advancing rapidly in the last few years in respect to what is and what is not a public utility, has it not?

Mr. MACFARLAND. I have not observed it, but naturally as it becomes important it would increase in discussion.

The CHAIRMAN. The tendency is to consider anything as a public utility that can control prices and fix the price of a necessity of life; is it not?

Mr. MACFARLAND. I think there is a tendency to distinguish between the legal description of a public utility, that is say, the description which has grown up out of judicial decisions, and the economic description which you have given.

The CHAIRMAN. But the legislature has the right to determine that any sort of an industry is affected by the public interest.

Mr. MACFARLAND. Yes; controlled by the public interest.

The CHAIRMAN. And the moment it has determined that fact it becomes a public utility; does it not?

Mr. MACFARLAND. It does.

The CHAIRMAN. That being so, it might mean that the development of your thought would ultimately constitute the coal mines as public utilities or affected with a public interest.

Mr. MACFARLAND. It might. There is this difference, if I may be permitted to make the distinction.

The CHAIRMAN. Yes.

Mr. MACFARLAND. That the connection or that the close relation between the natural monopolies which do not enjoy the delegation of the power of eminent domain and other attributes of sovereignty

which are given to what the courts call public utilities, do not bring them as close to the Government and do not permit them, indeed force them, to meddle with political power, and therefore they do not have—the argument is not so strong, if it has any strength at all, that they should be taken by the public in order to get rid of an undemocratic power.

The CHAIRMAN. Might that not be a difference in the abstract more than its result?

Mr. MACFARLAND. It depends upon what importance you attach to the danger to democracy, to a government formed of the people, by the power which has been exercised by these gentlemen.

The CHAIRMAN. Recently there has been a good deal of discussion about the packers. If they dominate the prices at the source as well as to the consumer, and if they control a great many other necessities of life, such as food products, might it not reasonably follow that they would become affected with a public interest and thus subject to public control or ownership?

Mr. MACFARLAND. To the extent that it is an economic evil, I think you are right. And also there is this further consideration with respect to the packers. I have noticed a disposition on the part of the packers to increase their volume of newspaper advertising whenever they are under fire. Now, the newspapers, the fourth estate—if you can not have your newspaper free, measurably free, from undemocratic control, you are not in as much danger as the direct control of the public utility, but you are in great danger, and where monopoly gets, by virtue of its monopoly, a great financial power and can thus control the newspapers it becomes a danger to democracy which would make me tend to classify them with the so-called legal public utility.

And there is another element in the packers' case. They got their power largely by railroad rebates, and in that way they have an indirect connection with the railroads and with the public utilities.

Commissioner MEEKER. Do you suggest that the newspapers be taken over by the public?

Commissioner GADSDEN. It might quiet the packers to put the newspapers under public control.

Mr. MACFARLAND. Well, I do not know. I would do anything that I thought would tend to make democracy safe. I think it is the greatest desideratum in our life.

The CHAIRMAN. There have been witnesses here who have pointed out that, due to constitutional and legislative and other difficulties, it would be a long time before municipalities can concentrate the demand for public control of these utilities. Do you agree with that?

Mr. MACFARLAND. No; not for a moment.

The CHAIRMAN. In many places there has to be legislative enactment.

Mr. MACFARLAND. Oh, you mean there are legal difficulties?

The CHAIRMAN. Yes.

Mr. MACFARLAND. Well, if the difficulties are great enough, they can be overcome quickly.

The CHAIRMAN. For example, it has been pointed out here that the shortest possible time in which the city of New York could obtain control of the industry there would be about one year and nine months.

Mr. MACFARLAND. I do not think that is true. It depends upon what arrangement is made. If they are going to make an out-and-out purchase and issue bonds against the purchase price, I think that is probably true—they will have to have a constitutional amendment. But if, on the other hand, they are going to adopt some such method as that which we undertook in Massachusetts, I do not think there is any necessity for it. I think they can do it just as quickly as their lawyers can get through fussing with the draft of the measure.

The CHAIRMAN. Do you believe that in a good many communities in the country it might be a long time before they could take over the control of these properties?

Mr. MACFARLAND. Not if they want to take them over.

The CHAIRMAN. But do you think that sentiment at the present time is so vigorously in favor of municipal control that they will soon take them over?

Mr. MACFARLAND. I think very likely it would vary in the different communities, depending upon the nature of the arguments that have been made to them. In some cases, there is an entire default upon one side of the argument. You will find in that case a different sentiment than you will elsewhere.

The CHAIRMAN. It may be that your solution will be finally adopted by the American people. Pending the determination of that question, what is to be done with these utilities?

Mr. MACFARLAND. Well, I do not think there is anything needed to be done with them. I do not think we ought to let the devil get well. In his period of convalescence he wants to be a monk, and while he is in that contrite mood I would make him act up to his professions.

The CHAIRMAN. Well, the President has appointed a commission to make a study of this situation, evidently believing that they are in serious condition and need help. Would you favor our simply recommending that the industry is sick, it does need help, but that we think it is a disease which should prove fatal?

Mr. MACFARLAND. No; I would avoid saying that the industry is sick, and here is a narcotic, and you take it, and you could take it to-day and take it to-morrow, because you have to increase the dose to-morrow, and take it the next day, because you have to increase it the next day, and take it the day after that, because the effects are the opposite from cumulative, and if in the meantime public ownership comes along you may be saved; otherwise you are going to die. That is what I think any other palliative like cost of service—

The CHAIRMAN. Can you look at the question now from the standpoint of private ownership and private operation? Assuming that that is to be the status of these industries throughout the country, then what recommendation have you to make?

Mr. MACFARLAND. The public utilities under private management thought they were doing a very smart thing during those periods which Prof. Fisher has described of falling prices when they stipulated with the communities which they served, generally for bogus considerations, that the price of the fare should not be diminished and that they would not increase it. Now, there is not any power in any State or nation except by a constitutional amendment of the United States Constitution that could break that contract against

the wish of the street railways, and there is not any sensible person that believes that the street railways would have consented to the breaking of it if it was to their disadvantage. Now, the cat, as Prof. Fisher said, jumped the other way, and they are paying the fiddler. They had their dues and they are now kicking at it, for having to pay the fiddler.

Commissioner GADSDEN. Who are you talking about?

Mr. MACFARLAND. The street railroads.

Commissioner GADSDEN. Are you including the bondholders and stockholders?

Mr. MACFARLAND. Constructively, of course, the bondholder and stockholder is responsible for the act of his agent who made this contract.

Commissioner GADSDEN. The bondholders certainly had nothing to do with this situation.

Mr. MACFARLAND. Yes; constructively they did; and the bondholder is not suffering a great deal now. His bonds are not in very much danger, except bonds which are in the nature of preferred stock and not really bonds at all.

The CHAIRMAN. Then, your answer is that we should let these utilities struggle on under the conditions and limitations of their ordinances and franchises and things of that kind?

Mr. MACFARLAND. Yes. I should say to them, "Go back to your respective communities and work out your problem. We recommend that you work it out by public operation."

The CHAIRMAN. Now, you have an experience up there in Boston. Did they have a contract for fare there?

Mr. MACFARLAND. Yes.

The CHAIRMAN. That did not work out, did it?

Mr. MACFARLAND. It did not. In consideration of the public operation taking over the possession of the property we agreed to give them a return on their investment which they could not possibly earn under the contract, and in consideration of that they agreed to turn over the possession of their property.

The CHAIRMAN. Do you think that was a fair solution of the problem?

Mr. MACFARLAND. I do think it is a fair solution with this qualification: At the time a very good bargain was not driven by the public. I do not think anybody in Boston who was acting on the public side had any idea of the extent to which that property was gutted; that is to say, the extent to which dividends were paid out of capital, and obsolescence and maintenance had been neglected, and the railroad had been allowed to run down. And now the public, of course, has got to rebuild it and make a new milch cow out of it: that is to say, if the old stockholders ever contemplate taking it back again. And in any event they are building it up against themselves if they ever decide to purchase it.

The CHAIRMAN. Rates are going up by leaps and bounds in Boston?

Mr. MACFARLAND. Well, they have gone up to 10 cents, and the counsel for the railroad, who is here, just told me that they are making money.

Mr. WARREN. They are what?

Mr. MACFARLAND. Making money.

The CHAIRMAN. Is the increase in fare due to the fact that the railroad company is expending more than the normal amount for maintenance, repairs, and improvements?

Mr. MACFARLAND. I think it has something to do with it. They are expending too much, in my judgment. By the way, Mr. Warren, the mayor and your associate, Mr. Whiteside, came to my view of that, I see.

Mr. WARREN. Did they?

Mr. MACFARLAND. Yes. Mr. Whiteside has brought a bill in equity to compel the trustees, as I understand it, to reduce the amount they are spending on maintenance.

Mr. WARREN. I did not know that.

Mr. MACFARLAND. But I do not want to criticize the trustees for that, because it is a difficult question to decide whether to allow the continuance of the operation of a poorly equipped road with its great expense or to run up the capital charges in order to better equip the road and thus reduce the operating expenses.

The CHAIRMAN. Who is responsible for the expenditure of money for capital or maintenance, the trustees?

Mr. MACFARLAND. The trustees.

The CHAIRMAN. Are they public representatives?

Mr. MACFARLAND. Absolutely; appointed by the governor; just as much public as your park trustees of your public parks or water commissioners or your school commissioners.

The CHAIRMAN. Then the money that is being spent for maintenance and repairs and those things is spent with their full knowledge and consent?

Mr. MACFARLAND. Is done with their full knowledge and consent. It may be that they are being overreached by the technical men under them who are advising them as to the proper amount of maintenance. It may be that those men are being overreached again by men who have a financial interest in seeing the road rebuilt, so in case the public should ever determine to purchase the property outright they would have to pay a new value—the value of the improved road; improved out of public funds.

The CHAIRMAN. Now, Mr. MacFarland, if you were advising the city as to the best possible contract to make with a street-car company for private operation under public control, what would you say?

Mr. MACFARLAND. I think the gravamen of the evil of the present situation is not in private ownership; it is in private operation, private control. For instance, Glasgow for 19 years tried public ownership and private control, and it did not work; it was a miserable failure in every respect—politically, economically, financially, and socially. And then they took over the public control, and it has been the classic example of the success of municipal operation in the world.

Under private ownership and public operation, if the operation is complete and the separation between the ownership and the operation is as complete as it is under our plan in Boston, your stockholder becomes nothing more than a Government bondholder. You know the railroads in a distressing situation will get equipment by issuing securities with a chattel mortgage against them, but he is

not considered to have anything to say about the operation of the road. Now you convert them into Government bondholders, scarcely having more interest in the operation of the road than a Government bondholder has in the operation of the United States Government, and in that way you get your money. You arbitrarily seize the use of their money.

The CHAIRMAN. I believe in your opening statement you said the solution was government ownership or some cost-of-service plan; did you?

Mr. MACFARLAND. Yes; I say that because that is what the gentlemen who are opposed to public ownership seem to suggest. It is a catch phrase, and it does not mean anything.

The CHAIRMAN. What do you think of the cost-of-service plan in Cleveland, for example?

Mr. MACFARLAND. I think it has worked pretty well in Cleveland under special circumstances, under circumstances that you will not be able, without great struggle, to effect in other cities, and under circumstances to bring about which I think you would find the owners of the street railways would prefer public ownership and operation. That is, they went through a reorganization in Cleveland at the beginning of the cost-of-service plan, and that reorganization squeezed out a great deal more water than you are liable to get the stockholders of these convalescent roads—I will not say convalescent roads but sick roads—to consent to even in their contrite mood now. Their cost-of-service plan contemplates the cost of service after paying the cost of the capitalization which now exists in the roads.

The CHAIRMAN. Now, referring to the principle involved rather than to the practical difficulties, do you believe that, if the property of the plant is properly valued, either by the city or by some State tribunal and the contract made which secures the proper return to the capital invested with efficient regulation over the service and capital expenditures, the maintenance requirements and of the accounting, would that be satisfactory and properly safeguard the public interest?

Mr. MACFARLAND. For a while, while the public was interested in it. It would be like a new broom that sweeps clean. But just as surely as those things have worked out in that way in the past, in the long run, the man who is interested in the private property, in the company under that management, will find ways by stealth or hook or crook of cumulating a profit that was not contemplated in the original contract. It always has been so and always will be so.

Commissioner GADSDEN. Then you believe in the purchase eventually—

Mr. MACFARLAND. Well—

Commissioner GADSDEN. Then there is an option to purchase always?

Mr. MACFARLAND. Well, that option is likely to be exercised just as it will now, if we take public ownership. It is like locking the barn door after the horse is stolen. After they have accumulated this situation, the public will have to take it at that price.

The CHAIRMAN. Do you know any better system for private operation and control than the cost-of-service plan?

Mr. MACFARLAND. Do you mean a real cost of service?

The CHAIRMAN. A real cost of service.

Mr. MACFARLAND. Under private management—I do not know that there is any better system.

The CHAIRMAN. Then do you think that this commission could properly recommend to the President that one of two things should be done by the American communities—either to purchase the properties and operate them by public authorities, or to make new contracts based upon cost of service properly safeguarded?

Mr. MACFARLAND. Well, I think that those are the horns of the dilemma. Personally, if I were the commission I would not recommend anything but public operation—public ownership and operation or public operation under a proper 99-year lease, say.

The CHAIRMAN. I am very much interested in the question of public ownership. Yesterday we had a witness here who told us that one of the systems in Rhode Island operated through 50 cities and villages. How would you work out the public-ownership plan there?

Mr. MACFARLAND. How do they work it out? The Post Office Department operates in 10,000 cities and villages.

The CHAIRMAN. Well, you referred to public ownership then as State ownership rather than as municipal ownership?

Mr. MACFARLAND. I think that is a local problem. In Boston we have operation by State trustees because the roads ramify into a greater territory than the city of Boston. Where you have—

The CHAIRMAN. Your plan embraces State as well as local ownership?

Mr. MACFARLAND. Yes.

The CHAIRMAN. Just so long as the public own and control?

Mr. MACFARLAND. Rhode Island is a very small State, and it may be that it ought to be State operation of one unit of those. Now, our problem is a little different than that. It is halfway between a road operating entirely in the city limits and of a road operated through a State; and we deal with it in a compromise way.

Mr. WARREN. You merely mean ownership by some public department of government?

Mr. MACFARLAND. Yes.

Mr. WARREN. Whether it is a State or city or district or town, as the circumstances may suggest?

Mr. MACFARLAND. Yes.

The CHAIRMAN. Do you believe that these different utilities should have paving taxes?

Mr. MACFARLAND. Should they pay what?

The CHAIRMAN. Paving taxes or assessments?

Mr. MACFARLAND. No; I do not. I think that is rather an anachronism.

The CHAIRMAN. I have no further question. Do you wish to ask any, Mr. Warren?

Mr. WARREN. No.

The CHAIRMAN. We will stand adjourned until 8 o'clock to-night. (Whereupon, at 5.05 p. m., an adjournment was taken until 8 p. m.)

EVENING SESSION.

STATEMENT OF MR. THOMAS L. HALL.

The CHAIRMAN. You may proceed, Mr. Hall.

Mr. HALL. I am chairman of the Nebraska State Railway Commission. I do not conceive that it is necessary for me to make any statement on the record of my qualifications and experience in the matters which are now before your commission.

The CHAIRMAN. The fact that you are chairman of the Nebraska State Railway Commission is sufficient to make us interested in what you have to say.

Mr. HALL. I may say that I have spent eight years of my life in college training, specializing in public-utility work, city administration, and then the law, and then banking experience, from collector on our streets to president of both national and State banking institutions, then the practice of law, for nine years, and have now spent eight years on the Nebraska State Railway Commission, and am now chairman of it.

I have something to say to this commission that I want to say in a spirit of frankness, but wishing it to be understood that I say them kindly, without any feeling of bitterness, but speaking as one who represents the public and the corporations alike, undertaking to stand fairly and squarely between those who serve and those that are served.

In the matters that I want to talk to you about now, electric transportation, it is useless for me to say that I am talking unbiasedly. I have gone through long-continued studies, and I have written official opinions. I have come to definite conclusions, and I now want to tell you the result of those conclusions; and I want to prove to you every figure that I submit to you; and the figures that I use have never been contradicted, not in the slightest, in our courts, by the utilities that are contesting the work of our commission now in the State court and also in the Federal court.

You will all remember that, prior to 1893 and 1894 and 1895, many of our western cities were enjoying what was called the great city boom, great city development.

I now want to take up the history of Lincoln, the capital of Nebraska, and the Lincoln Traction Co.

The CHAIRMAN. May I suggest, Mr. Hall, that in discussing this question you do not go into too many figures and details, because this is not the trial of a case. What we want is your general opinions and your conclusions.

Mr. HALL. I understand; but if this commission is to come to general conclusions, it will be necessary for the commission to have more or less of the details. I shall generalize just as much as possible by using totals.

During the period of the boom in our western cities, the city of Lincoln had many new additions laid out, some of them quite remote from the city. Men interested in those additions to the city, having no street-car transportation to those cities, organized companies, and lines were run out in different directions from the city.

That was just after I had gotten out of my university first course, and was working in one of the banks, the president of which was Walter J. Lamb, of Lamb, Ricketts & Wilson; and Mr. Ricketts was interested in one of those projects. I remember discussing those matters with him personally while I was working in the bank as assistant cashier.

That proved to be a miserable failure. The line was all torn up and abandoned. But at that time it grew until there were seven companies, street-car companies, operating in the city of Lincoln, the lines running out in almost every direction from the city.

Commissioner SWEET. What was the population of Lincoln then?

Mr. HALL. About 40,000. I believe that is about right—1893, 1894, 1895 witnessed a great crisis, as you all know. No city in the central part of the United States was hit harder, I guess, than the little city of Lincoln.

In 1895, 1896, and 1897 all of the street-car facilities and services were in the hands of a receiver. It was just a slaughter for those three years.

In 1898 a new company was organized known as Lincoln Traction Co. The Lincoln Traction Co. is the present company. Lincoln Traction Co. was this company that was organized in 1898. Just keep those distinctions in mind, please. One is Lincoln Traction Co. and the other is The Lincoln Traction Co.

Commissioner GADSDEN. This is No. 2 in the series?

Mr. HALL. Yes; except the last one has "The" in it.

Mr. WARREN. This is No. 1, isn't it?

Commissioner GADSDEN. No. 1 of the group of seven independents, but this is No. 2 in the series, as I understand.

Mr. HALL. I want to get that plain, the two names being so similar.

Mr. WARREN. But the one with the article came after the assignment?

Mr. HALL. Yes; that is the present company that is operating in Lincoln.

Commissioner BEALL. Is that the time Mr. Scudder came into it, or was he later?

Mr. HALL. Mr. Scudder came in at that time. I would not speak definitely on that. I have not bothered myself about names of stockholders and individuals.

When the new company, Lincoln Traction Co., was organized, it took over all of the facilities and assets of whatever nature in the hands of the receiver.

They issued \$100,000 in bonds, \$622,500 in preferred stock, and \$217,050 in common stock, making a total issue of \$935,050.

That company operated until 1909, February 1.

I am assuming that the original bonds and stock that was issued in 1908 by the new company represented a par value; that they at least issued as many securities as the properties were reasonably worth at that time, having no inventory or physical valuation or studies of any kind back at that date.

From the time of the organization, 1898 to 1909, those securities were increased as follows:

The bonds were increased \$150,000; the preferred stock was increased \$77,500; the common stock was increased \$112,950; making

a total increase of \$340,450; making the total outstanding capitalization in 1909, \$1,280,000. I do not think I need to give the details of those amounts.

The CHAIRMAN. No; just the amounts.

Mr. HALL. In 1902 Lincoln Traction Co. took from its operating income and built a heating plant, and organized a corporation within itself. That amounted to some \$98,000 or \$99,000.

They borrowed on bonds on the heating plant seventy-odd thousand dollars, and entered into a contract with themselves—that is, with the parent company—that the heating company should issue \$150,000 in stock, turn it all over to Lincoln Traction Co., and Lincoln Traction Co. should furnish the steam without charge for 20 years to the heating plant.

Commissioner BEALL. What was that—exhaust steam from their own station?

Mr. HALL. It was exhaust steam; and they were to pay a certain amount for the live steam that was turned in to the heating plant, which amounted to but a few dollars in all the years. There was a little payment there, but it was only in the hundreds of dollars. It did not amount to \$1,000.

Commissioner GADSDEN. What did they do with the exhaust steam before they utilized it for heating purposes? What became of it? Was it a high-pressure plant or a condensing plant?

Mr. HALL. That was a steam plant then, presumably. I don't know how they handled the exhaust steam at that time.

Commissioner GADSDEN. The chances are that the exhaust steam up to that time was wasted in the atmosphere.

Mr. HALL. They undertook to establish the fact that the exhaust steam was simply a by-product later.

While this heating plant was organized by a ring within the ring, Lincoln Traction Co., at the same time, out of the operating income of the traction company, began to install, and did install, light and power facilities, all covered by the stocks and bonds of Lincoln Traction Co., and having nothing to do with the heating company. While, in fact, the name of the heating company is the Lincoln Heat, Light & Power Co., the name is Heat, Light & Power Co., but it does not own or operate any light and power facilities. The light and power facilities are a part of the properties of The Lincoln Traction Co., presumably covered by the same securities.

In 1906 and 1907 a new street-car company was organized, known as the Citizens Railway Co. and Citizens Interurban—there were two of them; one was the Citizens Railway Co. in the city and the other was the Citizens Interurban; but in the consolidation it was all treated as one; and when I speak of it I mean both the interurban and the city property. It was, in fact, all the same company, except the interurban part of it had to come under a separate corporation, under a different statute.

Those properties were operated down until February 1, 1909, in strong competition with Lincoln Traction Co.

Mr. WARREN. They were organized by different interests?

Mr. HALL. They were organized by different interests entirely. No stock had ever been issued to the investors in the new company. It was all represented by checks or money paid in in book accounts.

Mr. WARREN. They subscribed stock, I suppose?

Mr. HALL. They subscribed; but the stock had never been issued, and never was issued.

When the consolidation took effect, by the organization of The Lincoln Traction Co., which was a new, distinct organization for the purpose of consolidation, the consolidation agreement provided that the Citizens Co. should be merged in with the properties of Lincoln Co., and that the Lincoln Co. should issue \$1,020,000 in first mortgage bonds on all of the properties for the purpose of taking up the \$250,000 of bonds outstanding that I mentioned awhile ago, the \$700,000 in preferred stock—referring, now, to the total of \$1,280,000, total outstanding February 1 of Lincoln Co.

But the \$700,000 of preferred stock was drawing 6 per cent interest, and they converted it into bonds drawing 5 per cent, and they agreed, on account of such conversion, that a 10 per cent premium should be given in bonds to the preferred stock, which made it \$770,000.

So you have \$770,000 of bonds developed out of the \$700,000 of preferred stock, and the \$250,000 of the original bonds, making \$1,020,000, first mortgage bonds, which was to be given on all of the consolidated properties.

This Lincoln Co. then had outstanding, representing its equity in the properties over and above the \$1,020,000, the \$330,000 common stock. I hope you will just get that one item fixed in your minds thoroughly, because it is very important in the consideration of what is to follow.

The Citizens Co. was to receive all of its money back that it had invested in the Citizens property in preferred stock.

After a long, laborious effort, it finally got the books; and the books corroborated exactly what they did do. The books show that the Citizens Co. had invested \$332,000, which, up to the time of the consolidation, included all of the money paid in, with 7 per cent interest on it, to that date. There was a little discrepancy there of a few dollars—very small.

Over and above this, however, it was agreed that the Citizens Co. should receive a 25 per cent bonus in preferred stock, which made \$83,000 on top of the \$332,000; making a total of \$415,000, which the stockholders of the Citizens Co. actually received, and which was a bonus of 25 per cent above the grand total of money plus 7 per cent that had ever been paid in.

I know this, because I have checked the books of private individuals, who have their bank checks to-day; and I have photostat copies of them and of their original stock in both companies, tracing it down to exact certainty.

But, Lincoln Traction Co. said: "If we issue you \$415,000 for your \$332,000, what shall we take out for our \$332,000 common stock, that represents our equity over and above the \$1,020,000 in bonds?" "Well," they said, "we have built that heating plant, and we could have declared it in dividends, paid it out, but as we have built that heating plant, and it is an equity in there that belongs to us, and we are consolidating with you, we will take 200 per cent for our \$330,000, or \$660,000 preferred stock in the consolidated company." That in view of the fact, now, that they had built the

heating plant out of the operating income in the past, that they had given the Citizens Co. a 25 per cent bonus for the money that it had put into the Citizens property. That was agreed to. That was issued.

So we start out, in 1909, with \$1,020,000 first mortgage bonds, and \$1,075,000 preferred stock—the \$660,000 plus \$415,000. You have that now?

The CHAIRMAN. Yes.

Mr. HALL. If the program of high finance had stopped there—

Mr. WARREN. This is all preferred that you are speaking of?

Mr. HALL. \$1,000,000 bonds and \$1,075,000 preferred; yes.

The Citizens Co., you will readily see, holding stock at 6 per cent upon which a 25 per cent bonus was given, in fact was getting $7\frac{1}{2}$ per cent upon the real investment; and that would apply equally to the \$660,000 to the stockholders of the Lincoln Co. That is, they got their 200 per cent, but they said that our heating plant plus this 25 per cent bonus brings it up to the \$660,000.

But the shrewd financier immediately saw that when the interest was paid upon the bonds and the dividends upon the preferred stock, if some day down the line the properties would be able to earn a dollar more, who would get it? If he reached his hand into the treasury and took it, somebody might be in trouble. How will we divide that dollar, and how will we get it out? We will just issue some common stock. Then the question was: How will we divide the dollar between the Citizens fellows and the old Lincoln Co.? And they agreed—I am giving you this which is all in the record, sworn to; there is no question about the facts—that they would divide upon the basis of the relative earning power of the two companies, which they determined was about five to one. Lincoln Co. five to one, as compared to the Citizens Co.

So they said: "We will give you Citizens fellows 80 per cent in common stock of your \$415,000 and we will take out 400 per cent in common stock of our \$330,000, which made a grand total of common stock of \$1,652,000. We are off. Started to operate."

Commissioner GADSDEN. What does that make the total capitalization?

Mr. HALL. The total capitalization?

Commissioner GADSDEN. Yes. I did not put it down.

Mr. HALL. Let me see, \$1,020,000, \$1,075,000, \$1,652,000—

Mr. WARREN. About \$3,347,000, I make it.

Mr. HALL. Yes; \$3,747,000.

Commissioner GADSDEN. That is right.

Mr. HALL. February 1, 1909.

Mr. WARREN. What did you make it, Mr. Hall?

Mr. HALL. \$3,747,000.

Mr. WARREN. Yes; that is what I made it.

Mr. HALL. No one—and it was announced in the papers and discussed in the papers at the time—no one expected to pay any dividends upon the common stock. That was discussed all over the city, up and down and around; and they did not pay any. But when the properties were brought together there were duplicate lines, duplicate facilities, both overhead construction and the surface lines and the power plants that had to be worked over and unified.

That process has been going on through the years, and it is not done yet. All of the properties on our State Fair Grounds have all gone—all charged to the rate-paying public—duplicate lines running out Ann Street, which parallels the main city street of O Street, all torn up, running off into the southeast direction, all charged to the rate-paying public, amortized. North Twenty-third Street, the same. The whole line between College View and Normal, all taken up.

The CHAIRMAN. All amortized, with your consent?

Mr. HALL. Yes; approved by the commission.

Commissioner GADSDEN. What rate were they charging? Five cents?

Mr. HALL. The rate was 6 for 25; six tickets for a quarter.

Commissioner GADSDEN. They paid it out of that rate, then?

Mr. HALL. Yes. And the income from the light and power all was brought into one account, and the whole operating expenses paid from the gross operating revenue.

Mr. WARREN. Was that paid out of earnings all through?

Mr. HALL. Yes.

Mr. WARREN. Amortized out of earnings?

Mr. HALL. Oh, yes; and is now being amortized; yes.

Mr. WARREN. Was all this done under the law of Nebraska?

Mr. HALL. Under the power of the railway commission—no.

Mr. WARREN. I mean, this merger that you speak of?

Mr. HALL. No.

Mr. WARREN. Was it a Nebraska corporation?

Mr. HALL. The Nebraska State Railway Commission is a constitutional body having plenary powers over rates and service, and general control of all common carriers.

The commission was organized in 1907, and this merger took place in 1909; and while I, personally, am of the opinion that the commission had complete power over the stocks and bonds and mergers at that time, the commission did not exercise such jurisdiction until the stock and bonds act, copied from the New York statute, was passed in 1909; but this merger was gotten through before the stock and bonds act went into effect.

Mr. WARREN. But it was a Nebraska corporation?

Mr. HALL. Oh, yes.

The operating income from all of the properties down to January 1, 1917, did not only pay all of the fixed charges upon the bonds, the dividends upon the preferred stock, and take care of all maintenance and depreciation reserves, amortize the losses that were brought about by the unification of the plants, but it enabled the company to pay on the common stock \$198,000 in dividends.

Mr. WARREN. Over what period?

Mr. HALL. Well now, I am not quite certain—

Mr. WARREN. Never mind then. I just wondered what the rate was.

Mr. HALL. They slipped it out in very small fractional per cents.

The first one they paid was in 1912, \$33,000; then, 1914, \$16,000; 1914, again, \$16,000; 1915, \$16,000, and so on down.

Mr. WARREN. What was the total they paid?

Mr. HALL. The total they paid was \$198,000. During the period I gave the company credit for all the increase in working capital which had been built up out of the rates.

The short-time notes and bills payable I gave the company increase for all of the difference that had accrued out of the rates in that account, and charged the company up with simply the \$198,000 in dividends paid upon the common stock and three hundred and some thousand dollars into actual betterments into the properties, which made a total of \$514,000.

While the company was paying out the dividends upon the common stock, and after it had made the investments in extensions and betterments to the properties, it drained its treasury so dry that it was necessary to go to the banks and borrow money in order to do it.

Prior to this an application was made to the commission to establish zone rates, which the commission granted, leaving the regular base rate, six tickets for a quarter, and 5 cents to the outside towns. There are five little suburban towns.

Commissioner GADSDEN. What date are you speaking about now? Have you gotten up to the war?

Mr. HALL. Oh, yes; that was three years before the war.

Commissioner GADSDEN. Three years before the war?

Mr. HALL. Yes; then this application—

Mr. WARREN. Was that a zone system—that base rate, plus 5 cents?

Mr. HALL. No; the regular base rate, 6 tickets for a quarter, or 5 cents on the cars in cash, or 5 cents straight to all of the outside zone from the center of the city.

The company then brought an application before the commission for an increase in the rates in the spring of 1917, I believe, but this finding is brought down to January 1, 1917.

The company refused to take an inventory of its property, although the city of Lincoln had filed motions with the commission asking the commission to direct them to do it. The commission had requested it; the attorneys for the company insisted that they had a right to make their record and make their case as they saw fit before the commission.

I was conducting the hearing, and I took the company at its word; and the result was the opinion that the commission entered refusing the company any further relief.

The supreme court reversed the case—remanded it to the commission, I should say, stating that the rates should be based upon the value of the property; which I conceded, of course.

Mr. WARREN. That is the Supreme Court of Nebraska?

Mr. HALL. The Supreme Court of Nebraska.

When the mandate came down from the Supreme Court of Nebraska, the company immediately started a separate, independent, emergency rate case, and filed it with the commission, and immediately started injunction proceedings in the Federal court of the United States to prevent the commission from enforcing its own rates.

The Federal court ordered a valuation, inventory, and depreciation studies to be made immediately.

Mr. WARREN. The Federal court did?

Mr. HALL. The Federal court did, yes; and appointed a special master; and the special master made his report to the court, advising that, pending the valuation, a temporary rate should be put in of 6 cents.

Mr. WARREN. Did the Federal court issue any injunction on that application?

Mr. HALL. Yes, sir.

Mr. WARREN. Against the commission?

Mr. HALL. Yes; which, of course, we will test. We will have that settled here, I guess.

Now, as to the needs of the company. In 1918 the great epidemic of the "flu" came on; and just prior to that, on account of the advice of our commission or myself personally, advising the company to give a raise to the motormen and conductors, three different raises during the summer of 1918, the net operating income fell so low that it was not equal to the fixed charges upon the bonded indebtedness.

The commission immediately put in a 5-cent straight fare, beginning with September 1, 1918, which was immediately followed by the epidemic of the "flu."

Starting with September, 1918, we find that the combined company suffered a loss of \$4,300 after paying the interest on the bonds and the dividends upon all of the preferred stock.

We go to the next month, and we find \$2,600. We go to the next month, of October, and we find that that deficit jumped to \$11,870. That was when the "flu" was the worst and the ban was on completely.

Mr. WARREN. That is after paying the preferred dividends?

Mr. HALL. Yes; counting all the fixed charges on the bonds and dividends on the preferred stock.

We go to the following month of November, and we find that that deficit had been reduced to \$1,745; keeping in mind, after all of the fixed charges, and all of the dividends upon the preferred stock were paid.

In December that deficit amounted to \$338.

In January it resulted in a net profit of \$4,749; in February it amounted to a net profit of \$5,355.48; in March, \$5,821; in April, a deficit of \$2,467; in May, a profit of \$621.

In other words, for the total period of five months it was a net profit over and above the corresponding months of the year before of \$23,896 and \$15,078 net profit for the five months.

The CHAIRMAN. Was depreciation charged for during that time?

Mr. HALL. The depreciation had been increased at the time of the investigation, when the case was up in which the zones were established; the book accounts showed that the depreciable properties amounted to \$1,900,000. The company had set up 5 per cent, and upon my personal insistence it was raised to 5½, and I again insisted that it should be increased to 6.

The general manager of the company, the operator, agreed with me absolutely; but the other officials, who represented the common stock, of course were fighting the increase, that they might have a net surplus in order to pay out dividends upon the common stock.

The 6 per cent was figured upon the \$1,900,000 down to September, 1918, when the commission insisted that the 6 per cent should be

figured upon not only the \$1,900,000 but upon all of the additions and betterments that had been put in; the depreciable properties, from the time we started with the figure of \$1,900,000, which brought it up to \$2,240,000.

Since September, the 6 per cent for maintenance and depreciation has been figured upon the total depreciable property, \$2,240,000 and some odd.

It includes not only that, but it includes all amortizations of discounts and sales of securities, taxes, losses, and the amortizing of these duplicate properties that are being taken out of the properties which, of course, the traction company will not have to meet in the future.

Mr. WARREN. Did you say those figures included the light and power?

Mr. HALL. Yes; this includes everything. I am giving the totals, the total results of the entire company.

Mr. WARREN. You have not given the street-railway figures separately?

Mr. HALL. I am coming to that.

Mr. WARREN. I do not like to interrupt you, but it is a little confusing to follow.

Mr. HALL. Yes. That is very proper. That is where one of the principal differences lies between the company and the commission. These figures I am giving you are the company's own figures, reported to us, by months.

Mr. WARREN. I assumed so.

Commissioner GADSDEN. I was wondering whether, in order to establish the general principles which you are doubtless leading up to, you will find it necessary to go into so much detail, Mr. Hall.

Mr. HALL. I am going to try to generalize from now on.

Commissioner GADSDEN. Yes; we could follow you a little better, I think, if you would.

Mr. HALL. Yes.

So, we find the results of operation for the entire company, with all of its doings—heat, light, power, traction, and everything combined, jumping from an \$11,000 deficit, of having sufficient to pay all of the dividends upon the preferred stock, which I have shown is really, in fact, $7\frac{1}{2}$ per cent dividend upon any reasonable investment, and taking care of all losses and discounts and amortization—jumping from the \$11,000 deficit to an average gain of \$3,000 per month for the first five months of 1919.

The fact that the heating company properties were installed out of the operating income and that The Lincoln Traction Co. for that money furnished the heating company holds the \$150,000 installed, the company says that whatever we made out of the heat, light, and power, is no concern of the traction end of it.

I grant you that the patrons of the street-car company should pay for the operation of the street-car facilities, and maintenance, and the dividends upon the value of the property, and so with the man who buys the light and the man who buys the heat and the power. That is very true. But if the company, by its own doings, reduced its own charges to the light and power company, for instance, per kilowatt, in order to make a big profit out of the light and power

end of it, and thereby lay the foundation that it would come to the commission and say: "We are losing money on our traction end of it," and then go back to the people for a raise in rates, I then begin to question very seriously the charges made for the light and power; and I want to know immediately if the allocation between the properties of the heat, light, and power is made on the proper basis, and I want to know the cost of production of the steam, and the cost of production of the light and the power, and the distribution of the light and the power. I want to know the entire relation between those properties. When I find that they then, with the ring within a ring, sell the current at $2\frac{1}{4}$ and turn around and sell it to their own company, with the same manager over it, at $2\frac{1}{2}$, without one wire or one transformer, or one nickel invested in the light and power facilities, then it begins to look to me as if this outside common carrier that bought the power from The Lincoln Traction Co. should pay that money directly to Lincoln Traction Co. and The Lincoln Traction Co. should get the full benefit of it.

But what I am telling you now is the real basis for the contention between the commission and the traction company, so far as the relation of the heat, light and power and traction facilities are concerned. And their idea is, of course, to wring out of the public a return upon the common stock.

Let us see what took place. In the inception of the company, when it started to operate, following 1909, the great contest came up between the stockholders as to who was to manage and operate the properties, and the stockholders began to slip around among themselves and undertake to buy up the common stock, because the articles of incorporation provided that the bonds shall not exceed \$1,500,000, and upon the approval of the commission those bonds have been increased, all of the money checked in, to the \$1,500,000, the preferred stock of \$1,075,000 has been increased to \$1,186,700, by authority of the commission; but the articles of incorporation limit the preferred stock to \$1,500,000, and the common stock to \$2,000,000; but they had issued \$1,652,000 common stock, an amount higher than the preferred stock, right at the outset, purely without consideration.

Then came the time of trying to buy this up, in order that a certain crowd, one of the two factions, could have the control of the properties.

It resulted in the Moore interests of Detroit—Mr. Sharp and Judge Heiner, their particular ring of friends—paying as high as 85 cents on the dollar. Mr. Moore, of Detroit, has something like \$500,000 invested in 8,000 shares, and Judge Heiner has 100,000—I don't know just what it cost him, but I understand over \$50,000.

Then came the contest, after they got control of the plant, to try to get their money back that they had paid to their brother stockholders in order to get control of the properties; and that is the great struggle, in order to get back from the public now the money that they paid for the common stock, which was paid for the purpose of buying the control of the corporation.

The Railway Commission of Nebraska keeps its cards on the table, all the time, trying to make a rate that will operate the properties, maintain the properties, build up depreciation reserves great

enough to take care of any reasonable unforeseen contingency that might arise, pay the interest on the bonds, and dividends upon the preferred stock, provided we do not have, as right along in the past, to continue to pay out dividends upon the common stock.

The company now, when the war came on, comes in and says, "We have a great value in the common stock. The properties have gone up 100 per cent. It is ours, and we are entitled to earn upon it, and we propose to earn upon it."

Now, the question is, if we are to make rates to pay dividends upon the value of the property as measured by war-time prices. The railway commission, in all probability, after it inventories the properties and valuations have been made, would find a greater value in those properties than simply the preferred stock and the bonds: If that is to be the attitude of the courts, if it is the reproduction new less depreciation, without any further qualification—but we finally have got in our supreme court, when they took the second turn in the opinion to say that the railway commission shall take into consideration all past earnings in determining the fair present value.

In other words, with the amount of extensions and betterments that have gone into the properties, if they are to be capitalized and used as a basis for the return to the stockholders, then that amount that has gone in out of the operating income shall be charged up to the stockholders as a profit received. I am contending for that and shall continue to contend for that until I know that the highest court of the land has spoken.

I think so far as this is concerned, you have all you want on this Lincoln Transit Co. matter. It is unending in the discussion of it.

In Omaha we have a more glaring situation. The Hon. John L. Webster admitted to the commission that the hurried valuation that they threw up to the commission was 100 per cent above normal prices.

The CHAIRMAN. When was that valuation made?

Mr. HALL. But in order to bring it up—

Commissioner GADSDEN. Was that the property Mr. Waters was president of?

Mr. HALL. Yes, sir. In order to get those properties up to their understanding of the value, with ten million of bonds, four millions of preferred stock, and five millions of common stock, and not having paid one cent for the common stock into the public service, it took an increase in unit prices, in order to bring the properties up to the \$19,000,000 approximately—

Mr. WARREN. What property is that?

Mr. HALL. I am speaking of the Omaha properties; and in speaking of the Omaha properties, I am speaking of one of the finest electric transportation facilities in the United States.

The CHAIRMAN. When was that valuation made?

Mr. HALL. Just recently.

Mr. WARREN. Stone & Webster, did you say?

Mr. HALL. The Hon. John L. Webster, attorney for the corporation. Mr. Yearance, of New York, I believe—they started the case as an emergency rate case and had 1,200 signatures of laboring men demanding that the commission give a raise in rates and the company

would give them a raise in wages, and laid down a physical valuation. They said it did not amount to anything so far as an emergency rate case was concerned, but they thought it would please the commission. It turned out that Mr. Yearance had been out there 10 days, single handed and alone, and without even a stenographer, and that the different departments of the traction company turned over to him some kind of a property statement; and in 10 days he makes a valuation of \$19,000,000 on the property.

Commissioner GADSDEN. How much mileage?

Mr. HALL. One hundred and thirty-something; I can not just recall now.

Commissioner GADSDEN. I was trying to get at how much per mile he probably made his estimate on, which is done by taking such a figure per mile.

Mr. HALL. Well, the Omaha properties are very fine properties.

Commissioner GADSDEN. You say they are in good condition, so I think he could get a pretty good line on the property, if he was not new at the business.

Mr. HALL. Yes; they are good properties. But upon our investigation it was shown that the company had cash and working capital on hand of over \$900,000, and that the total amount of surplus invested in property, in cash and material on hand, was over \$2,300,000.

The commission was of the opinion that with that great amount of money invested in additions and betterments and over \$900,000 in money and materials and supplies, that we had a reasonable time to make an investigation as to the value of those properties. The company appealed to the supreme court and the supreme court remanded the case to the commission, and said that the commission was right in not accepting the valuation they laid before us, that a proper valuation should be made of the properties and suggested that a 6-cent rate be put in pending this valuation.

Mr. WARREN. What were they asking for?

Mr. HALL. They were asking for a 7 cents, 8 cents—Well, one of the complications in the Omaha properties is that the Council Bluff property and the Missouri Bridge properties are leased properties for which they pay something like \$150,000 a year and do certain maintenance and furnish the equipment and power and all those things which come into it.

Mr. WARREN. Is that the company which had an interstate case?

Mr. HALL. Yes.

Mr. WARREN. Which went to the Supreme Court?

Mr. HALL. Some years ago.

Mr. WARREN. Yes.

Mr. HALL. In which the Supreme Court of the United States decided the question of railroads and railways?

Mr. WARREN. Yes.

Mr. HALL. That is the case. The commission, of course, could not come to proper conclusions until it knew the relation of those leased properties that were being operated over in Council Bluffs, Iowa, with the power furnished over in Nebraska and the rolling stock in Nebraska going over the bridge. We had to have the data to make proper allocations between the properties to know what should be paid in Omaha.

Then they have another little corporation known as the Omaha & Southern, running down to Fort Crook, which is a separate corporation within the corporation, which does not amount to much, but all those things would have to be known by the commission before we could come to any definite conclusions.

But the question of an increased wage came up the other day, or the men were going to strike. The city commission and the traction company held a conference in which they invited the commission. I took the position that the city and the traction company should come to their own conclusion in regard to the strike and the wage proposition up there, and whatever they agreed upon as the increased wage that the commission would recognize that and would immediately make a rate sufficient to cover the increased cost pending the physical valuation and inventories of the properties. While the Supreme Court had suggested that we make it 6 cents, we did make it four tickets for a quarter, or 7 cents straight fare on the cars, but four tickets for a quarter.

Neither in Lincoln nor in Omaha has the action of the commission caused any uprising of the people. The people have taken it philosophically, splendidly, with only very little, very little criticism of the commission.

Going back to the Lincoln Traction Co. for just a moment, the one great difficulty of The Lincoln Traction Co. so far as its financing itself is concerned is that when it began to see the necessity of a rise in rates they immediately published articles in the papers and talked it on the street, that their securities were all going to nothing and that they were facing bankruptcy and receivership, to the extent that the commission's time was taken up a great deal by individual stockholders coming to the commission and wanting to know what dire calamity the company was in. And they were offering to sell their preferred stock as low as 70 cents on the dollar, until I went into the papers and advised everybody not to sell a dollar's worth of preferred stock, if they were satisfied with 6 per cent quarterly paid dividends; and while things were temporarily tied up, the commission was ready at all times to make a rate which would make the preferred stock as good as gold. But, of course——

The CHAIRMAN. Did that stop the sale?

Mr. HALL. Well, there has not been any sold, of course—oh, yes; so far as I know. The president of the company went on the street and offered \$20,000 for 70 cents on the dollar—Mr. Sharp. Of course, you know and I know that such doings as that will wreck any company so far as selling additional securities is concerned for extensions and betterments. I am the last person in the world to charge people with bad motives, but I can well see that such doings as that only enabled the powerful to crowd to the wall the little stockholder when things get down to their lowest ebb and then buy it in at as great a discount as possible, knowing full well that the rates are going to be made to absolutely take care of those securities.

If I may just digress a moment on the question of physical valuation of properties on the basis of reproduction now, less depreciation—I think the theory is wrong. I do not think it will work; and it seems to me that it makes it absolutely impossible for a company to finance itself at these times. Who is going to put in a certain

amount of money into new properties at present price of construction, if they know that to-morrow, if prices should turn the other way, the very heart's blood of their property is going to be taken away, and taken away by the commission, because the court has so ordered it to be done that way? It would seem to me it would be the act of a maniac. If you are going to say that the honest dollar put in, when that dollar is invested in property, that that property is endowed with the public service, that which the corporation can not remove or discontinue without the authority of the Nebraska Commission—and I wish to say here, to, that the Constitution of the United States says that Congress shall have the power to regulate commerce between the several States and the Indian tribes and foreign nations. The Nebraska constitution says that the Railway Commission of Nebraska shall have jurisdiction of rates, of service, and of general control of all common carriers; certainly as broad and as inclusive as that of the Constitution of the United States. Certainly the Railway Commission of Nebraska, so far as Nebraska property is concerned, has all the power that Congress itself has over properties under its jurisdiction. Now, if the commission is clothed with such power, and every time the Supreme Court of Nebraska has spoken it has declared the law to be more inclusive, every time that it has spoken, until all of the opinions together certainly have conclusively announced that the Railroad Commission of Nebraska has plenary powers over all common carriers for rates, service, and general control, and that, of course, would even go to the wage—

Commissioner GADSDEN. Do you think you can fix the wage, you mean?

Mr. HALL. Yes; we can fix the wage.

Commissioner GADSDEN. Under your constitution?

Mr. HALL. Yes.

Commissioner GADSDEN. Have you ever done it?

Mr. HALL. Not by order; but I have personally, with consultation, ordered a raise three times last summer, and they—

Mr. WARREN. What?

Mr. HALL. Directed the company personally three times last summer to give a raise. Now, let us look at that. Service inclusively means facilities. You can not think of service without thinking of facilities. You can not think of rates without thinking of service and facilities. You can not think of service without thinking of the employee, can you?

Commissioner GADSDEN. I was wondering how you would enforce your orders if the men did not take your raise.

Mr. HALL. On that point I do not think it can be forced; no, I do not think so. I do not know how you can enforce it. But I mean to say we can enforce the order so far as the company is concerned.

Mr. WARREN. Your commission is in the constitution?

Mr. HALL. Yes; we are a constitutional party.

Mr. WARREN. You cover the railroads, too?

Mr. HALL. Yes.

Mr. WARREN. You cover the other utilities?

Mr. HALL. There is the trouble in this heat, light, and power business; we have the capitalization, but do not have the rates.

Mr. WARREN. I was just wondering—

Mr. HALL. There is the trouble. I would just like to say a word on the strike business, if I may. I have been through some serious experiences in such matters, and we only have very limited ideas that finally develop out of all of our serious experiences. But if we are to deal with labor unions and enter into collective bargaining, it would occur to me that the union should in some way guarantee to perform the service without striking.

It seems to me that that might be brought about by the union's entering into a proper contract with the carrier that the individual employee receive such a wage that he is enabled to create a savings account—I think that ought to be true in all normal living—that that savings account be deposited with the company; that the company use that money as an operating capital; that the company pay to the employee dividends upon that money or interest upon that money as high as the highest rate of dividends that it pays out upon its stock; that the contract should provide that the individual should give notice through his proper union officials as to quitting—a certain number of days.

Mr. WARREN. Unless the company should waive it in any special case?

Mr. HALL. Yes; unless the company should waive it in any special case. The statement that I have just made is simple, but it is complex in its practical carrying out, I realize. But it does seem to me that something of that kind could be done that would bring about a good feeling between the employer and the employee and also between the public and the companies.

The greatest work that we all have to do—you commissioners, all of us in our official life—is to bring about a proper coordination and proper feeling between our fellow men, between the corporations and the public; and the man that can do a little bit of that and lend a little helping hand along that line is a benefactor to society; he is a benefactor to posterity.

I have been criticized and I know what it is to stand up against the fire, and yet I have been able to rise above it and stand through the storm for the years until where I know that I enjoy the confidence of my own people. And I am not a person that is a politician in the strictest sense of a politician. I am almost ashamed sometimes to admit that I am in politics, because I am afraid that the officials of the world are the ones that bring upon us the dire calamities of the world and not the common people; and I believe that it is up to us, from us little fellows to you big fellows and on to the bigger fellows, to perform a duty and render a service that will last and last for ages, and now is the time that you and all of us should not get jealous of each other's standing and what each other is doing and all those things, but jump in and take each other by the hand and work and with an untiring effort try to avert somewhere away down the line such tragedies as the world has been going through. And if we can not settle it with the laboring element we are drifting, and we are drifting to a condition in the United States that you will see the red flag of anarchy waving on our streets from the Atlantic to the Pacific Oceans. And I do not wish to be understood as being pessimistic now, but I do want to be understood as being serious and feeling the weight of the burden of the things we are talking about.

Mr. WARREN. Is your commission elected or appointed?

Mr. HALL. We are elected.

Mr. WARREN. Three?

Mr. HALL. Yes; I am serving my second term—or my first term was a half term.

Mr. WARREN. How long is the term?

Mr. HALL. Six years.

Mr. WARREN. Is the whole board elected at the same time?

Mr. HALL. Oh, no; one every two years. I will say, almost on the side now, that from the time I stepped my foot into the commission the issue of Republicanism and Democracy was to be forgotten and we now pay no attention to the politics of an employee; for instance, when the legislature gave me money to hire special counsel, Mr. Hugh McMaster, who is eminent as a lawyer in our State and who is a Democrat; and the members in our working force are Democrats and Republicans alike; I do not know the politics of all of them, by any means.

The CHAIRMAN. Have you completed your formal statement?

Mr. HALL. Yes; unless you care to ask me some questions. It has been rambling, I know. I have not come down here with any prepared speech.

The CHAIRMAN. Just a few questions. You have stated two instances that have come under your direct observation. Evidently your commission has followed the statute in prescribing what you regard as proper regulation for those companies. Now, from your experience with those companies and other utilities what do you regard as the best form of regulation that will protect the public and result in good service and result in adequate returns to the investment in the property?

Mr. HALL. Do you mean under commission regulation?

The CHAIRMAN. Yes; either commission or public regulation. That question has nothing to do with municipal or public ownership.

Mr. HALL. Under private ownership, to be regulated by the public, first of all, there must be a starting point arrived at in the value of the properties. Then the rate of return must be fixed. I advocate a sliding scale; officers that are honest and undertaking to render a service that is of the highest class. If a complaint came in from the public and I was to pass upon it and I found that the company was making 8 per cent return but the service was such that it could not be complained of, every dollar that was spent was spent with care and a dollar's return got for it, I would undertake to reward that company by allowing them a pretty liberal rate of return. But if you do not have the starting point and then when you get the starting point once, that starting point is fixed—

The CHAIRMAN. What is your starting point?

Mr. HALL. Proper valuation, inventories, and depreciation studies. We have got to come to some conclusion as to what the company is entitled to a return upon. That is why I have taken exceptions to The Lincoln Traction Co., in that I have been asking for them to make a return to us as to their properties by classes, as to where their properties are located; for instance, pavement and the quality of pavement of certain streets, that we might have our engineering department inspect it, place a unit price upon it, and try to start out

on a proper value. As long as the \$1,625,000 common stock is outstanding they can say, "Oh, well, we have the value of the property and pay dividends upon it."

The CHAIRMAN. Now you have your property value?

Mr. HALL. Yes.

The CHAIRMAN. What is the next step in a perfect system of regulation?

Mr. HALL. Then for the commission to make a rate that will take care of the operation, maintenance, depreciation, taxes, losses, and damages, create depreciation and maintenance reserves, and take care of future contingencies that might arise and this return to the company. But we thought we were building up depreciation reserve through the years to take care of just such things—I say such things—any contingency that might come upon us. And when the storm broke both the companies said all the surplus we made in the past is ours; it is none of your concern; we made it under a legal rate, and it is ours. When they admitted to us all through the years that they should be capitalized, when the time came that the money should be placed back in operating income to be used in maintaining and operating the properties, and as soon as the prices went, as they have, and soared, they immediately said we must make a rate to take care of the increased cost of operation and disregard the surplus that we have built up in the past.

The CHAIRMAN. After the commission has secured all of these powers, should it collaborate in any way with municipal officers?

Mr. HALL. No; in Nebraska I do not see really—well, we set our cases down for hearing out over the State—all over the State—that we might get right onto the ground and have personal observation and make it convenient for witnesses to appear before the commission without having them come several hundred miles. I do not believe that under the constitution the municipal officers have anything to say about it, as such. They have a right, certainly, to appear before the commission and offer such testimony as they desire.

The CHAIRMAN. Laying aside the provisions of the constitution for a moment, do you believe the municipalities fit into a perfect scheme of regulation?

Mr. HALL. No, sir; not until you get to the metropolitan city, which is great enough and powerful enough to equip itself with engineers, statisticians, and lawyers that can cope with the physical valuation and rate-making duties that have to be performed. A little town, of course—

The CHAIRMAN. Are any of the cities in Nebraska large enough to do that?

Mr. HALL. Well, when the Omaha case started the Hon. Ed. P. Smith and Corporation Counsel Lambert filed objections to the jurisdiction of the commission because they found in the charter of Omaha a clause saying that Omaha should make street car rates. And I held that the commission did have jurisdiction, that the constitution of the State creating the commission certainly annulled all such statutes.

The CHAIRMAN. I am asking for your opinion now.

Mr. HALL. Well, I will quote this first. The case had progressed a day when the corporation counsel came around and said that he

hoped that the commission would not take their motion as to the jurisdiction of the commission seriously, because he realized that the commission was much better equipped to handle the matter than Omaha itself was.

Lincoln is not prepared at all. For instance, if you were to go to the city of Lincoln and ask the city officials as to depreciation studies and maintenance and upkeep of the city electric-lighting plant, the information that you would get would be very meager indeed; and so with the waterworks.

The CHAIRMAN. Do you think the city should have any control over the question of service, speed, stops, location of lines, etc.?

Mr. HALL. On the location of lines—you are speaking in general now?

The CHAIRMAN. Yes.

Mr. HALL. I think the city certainly should have the say as to what streets should be used for electric transportation, but I doubt if it should go further than that.

The CHAIRMAN. You heard Mr. MacFarland this afternoon?

Mr. HALL. Yes.

The CHAIRMAN. He is for municipal ownership.

Mr. HALL. Yes.

The CHAIRMAN. Is there any sentiment for municipal ownership in Nebraska?

Mr. HALL. Yes, sir. Personally, I believe in municipal ownership, public ownership of some sort, but only for the reason that it would eliminate high financing and stock jobbing; that is all. I would have the commission control, in some form, just the same, but a State commission control over all the public utilities is prepared to make comparative studies as between the different utilities and as to service. I know what efforts I had to make in order to get the near-side stop in Lincoln and Omaha. I had been making a study of that for several years in the cities of the United States, and I finally got the near-side stop in without a dissenting voice almost, but I could not have done it if it had not been for the war. I slipped one little word into the opinion, that the near-side stop would save a certain amount of fuel, and people took it for granted that that was true, and they all adopted the near-side-stop proposition. Then the question through the Fuel Administration came up as to the skip-stop.

We just issued a peremptory order and put in the skip-stop until the Fuel Administration raised the ban on fuel, and then we set down the matter for hearing in Omaha, as to whether it should be discontinued or not; and to our surprise there was only one objector—after notifying all the newspapers, the Omaha Commercial Club and the city officials—there was only one objection to the skip-stop system. However, it was modified to have the stops made at every block in the business sections of the city and the skip-stop recognized in the residence portion.

The CHAIRMAN. You said there was sentiment for municipal ownership in your State. Is it pronounced?

Mr. HALL. There is a pronounced sentiment for municipal ownership in the city of Lincoln especially, up until the company took the position that they wanted to sell to the municipality on the basis

of war prices. Well, then it went like a wave over the city and, of course, the city did not want to buy property on the basis of war prices. And there is some question now as to whether, under the new statute giving the city the power to buy the property, whether the city commission is going to call an election or not. It was just the day I left that I heard discussion of that by some of the prominent citizens of the city.

The CHAIRMAN. I have no other questions.

Mr. WARREN. I would like to ask what kind of franchise those companies have in Nebraska. Is it limited in time?

Mr. HALL. Yes; I do not know how many years it has to run. On the Omaha property a number of the franchises on certain lines have expired, but—

Mr. WARREN. Have you had occasion to study what is called the indeterminate term?

Mr. HALL. Very little. I would hardly be able to discuss it.

Mr. WARREN. You would not have an opinion to express?

Mr. HALL. No; I would not venture an opinion.

The CHAIRMAN. The commission is very much obliged to you, Mr. Hall.

(Witness excused.)

The CHAIRMAN. Mr. Ogburn, who is your next witness?

Mr. OGBURN. We shall ask next Mr. Connell, mayor of Scranton, Pa.

STATEMENT OF MR. ALEXANDER T. CONNELL.

The CHAIRMAN. Will you speak loud, Mr. Mayor, so we can all hear you?

Mr. CONNELL. Yes; and I will speak short, too, because I am the shortest witness you have had, I will venture to say.

Commissioner BEALL. Do not be too short, because we want to hear you.

Mr. CONNELL. Well, when I received Mr. Ogburn's invitation to appear down here I thought the conference was going to be like the governors' and mayors' conference we had last March. Later on I heard it was a congressional committee investigating railroads. Of course, I figured that congressional committees had a good time investigating and making their report to Congress or to the proper committees, and that is all. Now, I see you gentlemen are trying to make an honest effort to put your finger on the festering sore of the street-railway business, and I want to help you. I have all the data in my office in Scranton. I did not bring it down with me. I did not think you wanted that kind of data.

This gentleman who preceded me is the first man I have heard. I see now that you want the data, and I have it in my office, and I am going to send it to you just as soon as I get home; and I think it will take a shorter time to write it out for you and make a statement of the fight we made before the Public Service Commission of Pennsylvania against the increase to the street-railway company of Scranton a few months ago. We have the data on that line for 15 or 16 years. That is back far enough for you gentlemen to go, anyhow.

I came down here, gentlemen, with an unprejudiced mind against the street railway. As the mayor of Scranton, I want to see the in-

vestor get the proper return on his money—I do not care whether he is a small investor or a millionaire. But I am dead set against any man or set of men getting dividends on securities they did not pay any money for. I am dead set against water security.

The CHAIRMAN. Does that situation exist in your city?

Mr. CONNELL. That is the situation as we find it exists. These figures were taken by our city solicitor and an expert we had hired in our fight before the public-service commission, and they were not denied: The capital stock of the Scranton Railway Co. is \$9,076,550.59. Inflation or water, \$3,825,505.11. Honest capital, \$5,251,000.

Now, in my opinion, the Scranton Railway Co. is trying to pay dividends on \$9,000,000 of capital, and the people of Scranton can not stand for that.

The CHAIRMAN. What is the company paying upon that capital now?

Mr. CONNELL. Well, now, the company has not fared so badly. In 1907 it paid 6 per cent; 1908, 8 per cent; 1909, 8 per cent; 1910, 6 per cent; 1911, 6.85 per cent; 1912, 6 per cent; 1913, 8.74 per cent; June, 1914, 9.4 per cent; December, 1914, 4.65 per cent, two dividends that year; 1915, 5 per cent; 1916, 6 per cent; 1917, 5 per cent.

Now, that is not so bad after being in the war since 1914.

The CHAIRMAN. What was it in 1918?

Mr. CONNELL. We have not got that. In our argument before the public-service commission this data will all be sent to you, but I have a little memorandum I would like to read to you, or I can hand it over.

The CHAIRMAN. Before you do that, has the company maintained its property sufficiently?

Mr. CONNELL. Well, no sir; I do not think it has as well as it ought. We have discovered that the company has set aside money for betterments and then converted it into dividends. Unfortunately, all the shareholders of the Scranton Railroad Co. are nonresidents of Scranton. And there is no better managed railroad property in the world than when some of the shareholders are in the city in which it is operated.

The CHAIRMAN. Was any part of the capital issued for money which was taken from earnings?

Mr. CONNELL. Yes.

The CHAIRMAN. How much?

Mr. CONNELL. I do not remember. We have explained that to the public service commission in our fight—that they were paying some of the dividends out of capital stock, and I do not think that has been denied. I have not the report with me.

The CHAIRMAN. Now you may read the report you have.

Mr. CONNELL. This is all I have to offer now, but I am sorry I did not bring down my other data, because I see what you want, and I am going to send it to you.

Now, this is not my language. This is the argument used by the representatives of the city of Scranton in their argument before the State public-service commission at Harrisburg, but I subscribe to it:

It is universally recognized that difficult times have come upon the street-railway business.

If legitimate investments in this business are to be protected, and if the transit service necessary for urban development is to be rendered, over-

capitalized street railways must be reorganized and put upon a conservative basis. To try to bolster up invested pyramids of false capitalization is only to palter with a problem of immense public importance and to postpone the evil day a little and make the final readjustment harder.

Fictitious capitalization is prohibited by the laws of most States. It is also contrary to public policy, especially in the case of a public-service corporation. It destroys financial credit and imposes unwarranted hardships upon the public. It can not be condoned in the case of any public-utility corporation, but must be corrected as the primary condition of good service and reasonable profits in the future. Some people ask how are we going to wipe out fictitious capital or "water" without injuring a lot of innocent purchasers of these "water" securities. I answer that by saying the welfare of the general public must be considered before the welfare of the few. The few innocent purchasers of these "water" securities must suffer or the consuming public must suffer.

It is said that "what can't be cured must be endured"; let us say instead, "What can't be endured must be cured." And overcapitalization in the street-railway business is an evil that can not be endured. It is a constant source of peril to legitimate investment and to a service that is vital to the development and welfare of communities. The street railways can not be put upon a safe and efficient basis without a thorough house cleaning.

Public-utility companies, like other corporations and individuals, must to some extent "take the lean years with the fat," and bear some loss of income without flinching. Before a company demands emergency increase in its before-the-war rate, it should level off, average, and absorb its excessive earnings of other years. The fat of those past years must serve to carry it through the lean years of the uncertain future.

Urban transit service and the rates charged affect the public visibly and almost universally. For this reason public opinion is more sensitive to injustice in connection with transit operations perhaps than in connection with any other utility. Therefore a requirement that an overburdened public shall pay higher fares in order that inflated securities, shamelessly manipulated in the past by absentee speculators may be preserved and guaranteed in perpetuity, would tend to inflame the public mind at a time when it is most important for the interests of bona fide investors that just policies be adopted and that the integrity of sound popular government be preserved.

Now, that is part of the argument used by our representatives in Harrisburg, and I want to place it on your record here, if I may.

The CHAIRMAN. Who is the author of that statement?

Mr. CONNELL. I do not know. It is either the city solicitor or the expert we had hired. We had engaged an expert to go through the books.

The CHAIRMAN. Who was the expert?

Mr. CONNELL. I will think of his name in a minute. He was a New York man.

The CHAIRMAN. Was it Mr. Wilcox?

Mr. CONNELL. Yes; Wilcox.

The CHAIRMAN. I thought that language sounded kind of familiar. You read a list of the dividends that have been paid over a long period of years up to 1917. What rate applied during all that time?

Mr. CONNELL. Well, I was going to send you that data. We have all that.

The CHAIRMAN. Do you know whether it was a 5-cent fare?

Mr. CONNELL. Yes; the 5-cent fare. I thought you meant the amount of the dividend.

The CHAIRMAN. What is the amount of fare now?

Mr. CONNELL. Seven cents cash, and four tickets for a quarter, or 6½ cents.

The CHAIRMAN. Have you ever had a higher fare?

Mr. CONNELL. Yes; 8 cents.

The CHAIRMAN. When was that 8-cent fare charged?

Mr. CONNELL. From March until the decision of the public-service commission, about five or six months, I imagine, altogether.

The CHAIRMAN. Was that decision made after a hearing upon a complaint?

Mr. CONNELL. The fare was raised before the hearing.

The CHAIRMAN. Before the hearing?

Mr. CONNELL. They file their claim with the public-service commission and can increase their fare 30 days after it is filed. They filed their claim for an increase from 5 to 6 cents on September 7, and October 7, before the hearing, they increased the fare to 6 cents.

Mr. WARREN. What September was that?

Mr. CONNELL. I think it was 1917.

Mr. TINGLEY. You are in error there, Mr. Mayor.

Mr. CONNELL. I may be wrong as to the date.

Mr. TINGLEY. It did not become effective until March—

Mr. CONNELL. That is right.

Mr. TINGLEY. They held that rate open pending the argument as to the jurisdiction of the commission.

Mr. CONNELL. But before the argument you increased the fare from 6 cents to 8 cents.

Mr. TINGLEY. We followed the statutory process and gave 30 days' notice.

Mr. CONNELL. Yes; you did not do anything illegal at all.

The CHAIRMAN. What effect did that have on the riding habit?

Mr. CONNELL. It reduced the travel, no doubt about that. The first increase from 5 to 6 cents reduced the number of passengers in proportion—well, before the 6-cent fare went into effect they carried 28,000,000 passengers that year, and after the 6-cent fare went into effect for three or four months they were losing passengers at the rate of 6,000,000 a year for those three or four months. In other words, they carried about 22,000,000 that preceding year.

Mr. WARREN. Did not the influenza come in in that period?

Mr. CONNELL. Yes; we had nearly two months of "flu."

The CHAIRMAN. I suppose a lot of soldiers left, too.

Mr. CONNELL. And there are other influences to be taken into consideration, too. We have an automobile in Scranton for about every 20 people, and that reduces the street-car income.

The CHAIRMAN. Do you know what per cent of passengers were lost by the use of the 8-cent fare?

Mr. CONNELL. No.

The CHAIRMAN. Was the company losing money when it used the 8-cent fare?

Mr. CONNELL. I think so.

The CHAIRMAN. Have you noticed any appreciable increase in the riding habit since the 6-cent fare was installed?

Mr. CONNELL. Yes.

The CHAIRMAN. Is it due to a resumption in business activities and the return of soldiers or to the 6-cent fare?

Mr. CONNELL. No. You know when a fare is increased first the public protests against it by keeping away from the cars entirely; they will not ride for two or three months, but eventually they will come back.

The CHAIRMAN. Do you know whether the company is earning as much with a 6-cent fare as with an 8-cent fare?

Mr. CONNELL. I do not; and we can not find that out.

Mr. AINEY. Just for the accuracy of your record, I think you would like to have him use 6½ cents and 7 cents.

Mr. CONNELL. Yes; four tickets for a quarter. We have no 6-cent fares now.

The CHAIRMAN. Does the city assess paving requirements?

Mr. CONNELL. Between the tracks, and a foot on each side.

The CHAIRMAN. Do you believe that should be maintained?

Mr. CONNELL. I do.

The CHAIRMAN. Do the street-cars impose a burden upon the city streets?

Mr. CONNELL. I think so.

The CHAIRMAN. In what way?

Mr. CONNELL. I think the running of a street-car over a street has more to do with the damage of the pavement than any other vehicle.

The CHAIRMAN. Explain how that is.

Mr. CONNELL. It goes over the joint—bouncing over the joint—and breaks the pavement.

The CHAIRMAN. If it was necessary for the city to eliminate paving and other investments in order to keep a fare at the 5-cent level, would you favor it?

Mr. CONNELL. No, sir; I would not.

Commissioner GADSDEN. What about the car rider? Do you think he would favor it?

Mr. CONNELL. I can not tell that.

Commissioner GADSDEN. He is the man who is paying for it?

Mr. CONNELL. He is the man who is paying for it; yes.

Commissioner GADSDEN. The chances are they would favor it?

Mr. CONNELL. Well, he is asking me individually, and I can not tell what the car riders would say. I say I would not be in favor of it. That is a legitimate revenue that the city ought to get for the use of the streets.

The CHAIRMAN. What control have the city authorities over the street car line?

Mr. CONNELL. None at all.

The CHAIRMAN. No control over the question of reasonable stops?

Mr. CONNELL. No.

The CHAIRMAN. Or where the tracks are to be laid?

Mr. CONNELL. Oh, of course, if the tracks are not in good repair we can make them keep the tracks in repair all right. We do not dictate to them where they shall stop, because they stop at every corner. Our company gives good service there.

The CHAIRMAN. Have you anything to say about where new construction can be made?

Mr. CONNELL. Oh, yes; a lot of new construction should be made.

The CHAIRMAN. But can you determine where it shall be and when?

Mr. CONNELL. When and where?

The CHAIRMAN. Yes.

Mr. CONNELL. What streets, do you mean?

The CHAIRMAN. Yes.

Mr. CONNELL. No; I can not tell you. That will be in my report there.

The CHAIRMAN. Well, have you that power?

Mr. CONNELL. The power to make them repair?

The CHAIRMAN. No; the power to order new construction, new lines to be extended.

Mr. CONNELL. Well, I do not know that I have or not, to tell you the truth. I do not know whether I have that power or not. I know I have the power to make them keep their road in good repair. Of course, they can tell me to go to thunder if they want to, but I can go to court and make them.

The CHAIRMAN. Do you use the one-man car there?

Mr. CONNELL. No.

The CHAIRMAN. Has that been tried?

Mr. CONNELL. No; they are all big cars, good cars, fine cars.

Mr. WARREN. Has there been any official valuation made of that road yet?

Mr. CONNELL. Physical valuation?

Mr. WARREN. Official valuation.

Mr. CONNELL. By the city authorities?

Mr. WARREN. Well, if the city authorities have authority to make one, or by the commission.

Mr. CONNELL. No.

Mr. WARREN. Is that figure which you gave an official valuation?

Mr. CONNELL. As to the capitalization?

Mr. WARREN. No; of the value.

Mr. CONNELL. We have taken that from their own books.

Mr. WARREN. That was the capitalization, was it not?

Mr. CONNELL. Yes.

Mr. WARREN. But you mentioned a smaller amount.

Mr. CONNELL. That is deducting the inflation. Those are taken from the books.

Mr. WARREN. That is taken from the books, too?

Mr. CONNELL. Yes.

Mr. WARREN. By Mr. Wilcox?

Mr. CONNELL. Yes.

Mr. WARREN. Has that been approved by the commission?

Mr. CONNELL. By the Public Service Commission of Pennsylvania?

Mr. WARREN. Yes.

Mr. CONNELL. I do not know. We fought against an increase and they gave them an increase. I do not know what the public-service commission thought about our argument.

Mr. WARREN. Did Mr. Wilcox claim that he had found all the books and data necessary to make the valuation?

Mr. CONNELL. I do not know. I do not think he ever said that. I do not think we ever asked him that question. I do not think, though, that Mr. Tingley objected to his report down in Harrisburg.

Mr. TINGLEY. Is it not a matter of fact that, at the close of Mr. Wilcox's testimony before the commission, Mr. Gill moved to strike it all out as immaterial and irrelevant?

Mr. CONNELL. Well, it was not stricken out, though; was it?

Mr. TINGLEY. No; it was permitted to go in because the commission is not bound by the strict rules of evidence.

Mr. CONNELL. No; of course not.

Mr. WARREN. Is the commission making a valuation now?

Mr. CONNELL. No.

Mr. AINEY. May I ask a question? I think the mayor would be very glad to answer a question or two, and while I do not wish to interrupt the line of your thought and I have some hesitancy as to the propriety of my asking any questions with respect to a matter which is still pending before the public-service commission, I think though the mayor would like to tell you—and I will put it in the form of an interrogatory to him—that the commission's decision was that the rate of 6½ cents or four tickets for a quarter or 7 cents flat fare should go into effect for the period of one year.

Mr. CONNELL. Yes.

Mr. AINEY. The 6½ cents, however, to go into effect only for the first six months and then the question of its retention would be determined by the riding habit as developed under that arrangement.

Mr. CONNELL. Correct.

Mr. AINEY. And it was also directed that an inventory and an appraisal be had of the physical properties?

Mr. CONNELL. Correct.

Mr. AINEY. So that we could pass upon the question as to whether there was this overcapitalization and as to whether or not there was physical property to support an increase in rates.

Mr. CONNELL. That is right.

Mr. AINEY. I believe that is correct.

Mr. CONNELL. That is correct.

Mr. AINEY. And do you also recall that at the end of Mr. Wilcox's testimony he stated in answer to an interrogatory on the part of counsel for the railway company, I think it was, that his investigation of the books was not sufficient to justify therefrom the basing of any rate, but only sufficient to evidence to his mind and upon which to predicate an argument to the commission, that a valuation was necessary before permanent rates should be made? You recall that, do you not?

Mr. CONNELL. Correct. I do not want to make any mistakes, Mr. Chairman. That will be all?

Mr. AINEY. I think the mayor has stated the matter very fairly and frankly, indeed.

Mr. CONNELL. That will all be in the data before this commission. (Witness excused.)

The CHAIRMAN. Mr. Ogburn, have you anything else to present this evening?

Mr. OGBURN. One or two communications I think should be brought to the attention of the commission.

One is a telegram from Mayor Thompson, of Chicago. I have not it with me, but he expresses his regret that he can not be here. He expected until the last moment to come, but he was detained on account of very urgent official business.

There is a letter, a portion of which I should like to read, from Mr. Otto Kahn, of New York, in which he says:

I appreciate fully the far-reaching importance of the problem which your distinguished commission is investigating and the fine public spirit of the members of the commission in devoting their time and thought to that task. I realize, accordingly, that it is incumbent upon every citizen to comply with

an invitation by the commission to appear before it. It so happens, however, that it would be exceedingly difficult for me to be in Washington on August 4 and 5, as two of my partners will be away from New York during the month of August, which makes it almost impossible for me to absent myself from the office in these days of great business activity.

And then he discusses the steam-railroad question.

Mayor Watt, of Albany, N. Y., said that he desired to be represented at this hearing, and he asked Congressman Sanford, of New York, to represent him.

Congressman Sanford wrote that the only thing he could bring to the attention of the commission was in reference to local conditions in Albany, that the Albany company has within the past year received an increase in fare of from 5 to 6 cents, and that they have within the past few weeks adjusted their difficulties with their employees, and everything now seems to be pleasant and harmonious.

Here is something else which probably should be brought to your attention, which indicates that things are not so pleasant and harmonious:

This is a resolution adopted by the Central Labor Union of Kansas City, in which it calls attention to the fact that the Kansas City Railways Co. has refused for some time to deal with its former employees who are members of the Amalgamated Association.

Therefore be it resolved, That the Central Labor Union of Kansas City go on record as being opposed to any action being taken by said Federal Electric Railways Commission which will in any way aid said company in its said financial straits until said company has consented to deal satisfactorily with said labor organization.

I believe those are the only communications.

The CHAIRMAN. The commission now stands adjourned until 10 o'clock to-morrow morning.

(Whereupon, at 10 o'clock p. m., an adjournment was taken until Friday, August 15, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *August 15, 1919—10 a. m.*

Met pursuant to adjournment.

Present: Parties as before.

The CHAIRMAN. Mr. Ogburn, who is our first witness this morning?

Mr. OGBURN. The chairman of the Public Service Commission of Pennsylvania, Mr. William D. B. Ainey.

STATEMENT OF MR. WILLIAM D. B. AINEY.

Mr. AINEY. Mr. Chairman and gentlemen of the commission: In order not to be overdiscursive I shall follow my notes and if at any time you have questions which you desire to ask I shall be very glad to be interrupted.

It is a very great temptation to preface my remarks by congratulating the public that you have responded to the high call of the President and are devoting your attention to the consideration of the problems affecting the electric railways of the country. It is a distinguished service which you are performing, for so intimately

are the interests of all the people connected with the well being of these railways that interference with the functionings of the latter in their public service works an injury to an immense majority of our citizens, and I count with great confidence upon the helpfulness of your deliverances, the conclusion of your labors.

Without adequate electric-railway service the conomic, social, and industrial life of the Nation is seriously affected if not paralyzed. Its continuance upon a sound and efficient basis is of paramount importance, and that continuance can not be assured to the public without affording to these companies adequate revenues enabling them to produce it.

My acceptance of your invitation to appear before you is not predicated upon the assumption of the possession of any fund of knowledge on my part which would enable me to present to you a four-cornered plan by the application of which the difficulties surrounding the railway would disappear. I shall content myself by suggesting for your consideration a line of inquiry which I believe has in it elements of substantive helpfulness. I have some objection of placing myself in the position of a mere doctrinaire and an abhorrence for the vacuum of immature theories. I am convinced, nevertheless, after some careful consideration of the difficulties toward which you are devoting your attention, that there is no single plan of general applicability to all companies and to all localities and to all conditions. I can not accede to the suggestion that you have a problem before you; on the contrary, I must, with due deference to these distinguished gentlemen who differ, insist that you are confronted by several problems predicated upon different factors and requiring various answers as differentiating circumstances play upon particular companies and localities.

If, then, I may with full appreciation of these problems as they affect the railway and the public help in clearing away the underbrush, so that we may obtain an unobstructed vision into the fields beyond, I shall have at least fulfilled the actuating purpose of my presence.

First. There are widely varying conditions both with respect to the State laws and the economic policies enforced therein under which electric railways are permitted to operate.

Second. Within each State, the localities which these companies serve vary so radically as to prevent a conclusion which we might reach with regard to one being applicable to another.

Third. The companies vary with respect to their corporate history, the circumstances under which their roads were constructed, and the extent and character of the population which they serve.

Necessarily the increases in cost of operation will not equally affect the net returns of all these companies; and so we may have 5, 6, 7, 8, 9, and 10-cent fares, each reasonable and severally yielding adequate returns.

We would be blinded to the obvious, however, if we did not recognize that every electric railway of the land has felt the heavy weight of these increases. They exist and must be paid. It is, therefore, a part of our duty to ourselves, and to the public which need them, to aid, in our own selfish interests, if for no other reasons, in maintaining the railways as efficient public servitors.

We would rapidly retrogress, as a Nation, into conditions similar to those which confronted the world in the Dark Ages were we to be deprived of means of intercommunication which are now provided by railroads and railways.

I think to a large extent the problem as between the public and the railroad, which is one of the paramount problems, is, to a certain extent, a psychologic one; and it leads me to make this very general reference with respect to the attitude of the public mind at the present time.

Our minds are influenced by laws similar to those which affect the material world. For the time being it seems as if the centrifugal mental forces have gained ascendancy. We are inclined to be divergent and repellant in our attitude and we lack cohesiveness in our thinking. We fly away from common ground and we decentralize in thought and purpose, but, in the inevitable swing of the pendulum, we are bound to come back to the place where centripetal influences again exert themselves and attract us together to a unity of broadmindedness, to the place of consensus of opinion. I have great confidence in the fairmindedness of the American people when they are rightly informed. The problems which you are engaged in solving are, in the last analysis, their problems; and frankness and definiteness are prerequisites to public acceptance.

The public which constitutes the patrons and provides the revenues will not, in my judgment, have the least difficulty in agreeing with the carriers that the increased costs of operation ought to be—yes, must be—reflected in the rates of fare which they are called upon to pay. Neither will they controvert the fact that railway service is a national necessity in the conduct of the business and in providing for the convenience of the country; but there are other matters concerning which they are in doubt and as to which they have not been advised, and every man is inclined to resolve the doubt in his own more immediate interest. They are entitled to the assurances which can only come to them through definite clear-cut information, freed from vague generalizations. If I am able to judge, the psychological influences which are at work against the public acceptance of increased fares are that there is a belief that some companies are overcapitalized or are extravagantly managed, whereby the incomes are diverted and the public overburdened. This is the psychology of the case; and no more important service can be rendered by you than by the enunciation of the basic principles on increased allowances.

In this connection and as emphasizing this point, let me express, in no unfriendly spirit of criticism, my astonishment at the uncertainty and confusion with respect to remedies which appear in the testimony of the railways and allied interests which have been presented before you. Notwithstanding many notable and instructive statements, there was generally, on the part of the railways, a remarkable lack of cohesive or constructive suggestion as to what ought to be done.

I might interject that I have read with very much interest and with very general approval the statements of Mr. Pardee; but notwithstanding that, there has been generally, on the part of the railways, a remarkable lack of cohesive or constructive suggestion as to what ought to be done. And I frankly say to them, as I urge upon

you, that it occurs to me, to clarify the mental situation no more important service could be rendered—not only to them, but to the public—than if the railway association, say, were to lay before you, as officially as they could, a definite idea with respect to the basis upon which they would seek and demand relief from the public. It would, at least, afford us a fair opportunity for discussion. It would afford you all the benefit that would arise if it were a legal case, through definiteness in the pleadings. It would relieve many, like public service commissions, of some difficulty in presenting their views. We are not at all advised as to whether the position which we take is antagonistic to the railways, or whether it is in keeping and in harmony with their views.

In fact, I have not yet been advised as to just what basis it is that the railways would seek before you to have established as their theory of that which is their due and would enable them to be the most efficient public servants.

The CHAIRMAN. Just on that point, Mr. Ainey, and before you proceed with your statement further—in connection with the suggestion just made, will you look over the recommendation which I now hand to you and see if it contains a policy or plan which has any elements which you approve [handing paper to Mr. Ainey].

Mr. AINEY. Do you desire me to pause long enough to read this, Mr. Chairman?

The CHAIRMAN. If you will. Because it is right in connection with your suggestion.

Mr. AINEY. To answer your question categorically, I say, no; it does not meet the situation which confronts us.

To answer that I object to the suggestions contained in that paper as being either wise administrative suggestions or applicable in certain instances to the ultimate solution of the questions, I find myself largely in harmony with everything that has been said; and to safeguard myself I ought, however, to say that in the cursory reading of it there are phrases and statements to which I might take some exception; but following it in the major way, my mind runs in harmony with it. But I am trying to direct my thought at the present time to the relationship between the public and the companies whereby a riding public willing to pay rates of fare may be found.

A very simple statement of what the railways ask, spread about across the land, to my mind, would be very helpful, without which a statement of that kind will be of no benefit in securing the general approval of the public.

You had an illustration last evening. The distinguished mayor of Scranton was here, and you saw very clearly the attitude of his mind with respect to that. Not a single thought that is suggested in that paper would clarify his views with respect to the problem which he thinks confronts the people of Scranton and whose voice is his voice.

Will you permit me to follow this a little further; and I think possibly you will be able with a little more clarity to see what I have uppermost in my mind, and then, if you desire, we will resume that.

The CHAIRMAN. I would like to have the record show that the plan which I submitted to you was that offered by Mr. Clark, at one of the former hearings.

Commissioner SWEET. It is my understanding that that is the plan recommended by the companies. Is it not, Mr. Warren?

Mr. WARREN. I can not say that it is officially recommended by the companies, but it is submitted by one who is very much in touch with the industry and with the views of many members of the industry.

Mr. AINEY. The answer which you have received is exactly the point that I am trying to make—that you will not win public favor—and I understand from the statements that have been made that that is what we are all seeking to do; the Public Service Commission of Pennsylvania, in order that it may render its decisions in a way that will bring about results favorable to the retention of the companies as efficient public servants, is exceedingly desirous that all of its decisions shall gain public support. Why? Without that our decisions are of no use to that company. And I frankly say that, picking up the morning paper and reading of the deliverances before you—it may be, and I doubt not that there have been very splendid suggestions made by this man or that man; but on the other hand, there have been some very extreme statements made before you; and how are the public in the absence of some unity of action upon the part of the railways in the presenting of a concrete plan, and saying “thus far we will go and no further, and we ask this,” and then seek to gain public support of that—how are the public to differentiate and come to a just judgment? Because, in the final analysis, the thing that the public-service commissions do, and the things that you will say, will stand or fall on whether they will be accepted by the people of the United States. They have a veto power; and that veto power is in withholding patronage.

I may say that I think there is no class of utilities, none certainly coming under the jurisdiction of the Commonwealth of Pennsylvania, that are so wholly dependent upon the good will of their patrons as are the street railways. Water the people must have. Electric light, to a certain extent. But the people who patronize the street railway, they have the alternative of walking, the alternative of riding in their automobiles, and in certain instances and to quite an extent they have the alternative of the jitney. Therefore the railways occupy a different relation to the public than the railroads or any of these other classes of utilities. I have mentioned. If they are to succeed, they must have the support of the public. They may win my judgment; they may win the judgment of the courts; they may win the judgment of your honorable body in the elaboration of their problem; but, at the risk of redundancy of statement, I am exceedingly anxious in their interest, and exceedingly anxious in the interest of the public, that the public and the railways be brought together, and it is not because I am desirous that they shall state a formal method by which all this can be accomplished, but that they will state clearly and definitely and in very simple terms what they ask, in a way that the public will understand, and that this be done in connection with the promulgation of whatever conclusions you reach; otherwise they will be of no benefit, any more than decisions of the public-service commissions.

We may order a 10-cent fare because we believe it is absolutely just to do so. If people do not accept it, what is the result?

I fear I have gone over that a little too much and taken up too much of your time in this discussion.

I have no doubt that these many suggestions which have been made before you, like the suggestion of Mr. Clark, are the result of an attempt to nationalize this subject, to generalize where generalization was impossible, and to hazard conclusions which might have application in some State and in some localities, but not in all.

Take the following which were carried extensively in the public press and consider their effect upon the car riders whose good will it is admitted by the railways must be won: I have gathered from a hurried perusal of your hearing records that they range from the advocacy of municipal ownership, not as an effective remedy, but on the penalizing theory that it was bad and that the public when sufficiently punished would in a repentant frame of mind give more friendly support to private ownership.

To pause, with respect to that statement, I have no doubt whatever that every railway or every municipal-ownership man who has given careful thought would repudiate that as a statement. But that has been carried in the press of our land with a great deal more emphasis than, possibly, the really substantial arguments that might be advanced with respect to the municipal-ownership program. And I am simply trying to keep our minds directed to the psychologic relation of rider and railway.

Then, it has been stated very strongly before you, and the newspapers have carried it with considerable emphasis, that the public should pay a fair return on watered stock. Well, you know how quick the American people are to seize those expressions. We—all of us in America—are, I think, too apt to seize particular expressions, and thereby overgeneralize. But the effect upon the public is not a good one, and to overcome that, I am coming back to the thought that I believe there is no better service that the railways could furnish for themselves in the course of these deliberations than a clear-cut basis of that beyond which they would not ask and that to which they think they would require.

There have also been indirect statements, if not direct ones, intimating that public-utility commissions were politically created, and as such, with ears continually to the ground, were too timid or disinclined to grant the full measure of relief to which the railways were entitled. It is such expressions that bring doubt in the public mind as to the good faith of these companies and undermine the public's confidence in the integrity and fair-mindedness of commission decisions. Particularly is this likely to be so when these decisions support increases.

Again emphasizing, as I believe I have the right, my full and sympathetic appreciation of their difficulties, I think I should be permitted to state that it appears to me that the electric railways have pyramided an admittedly serious situation which requires at your hands most careful and helpful attention by at least a mild form of hysteria which does not.

Suggestions that patrons pay dividends on watered stock or on capitalized "hopes," that dividends on all capital be doubled because of the lessened value of the dollar, do not go far in winning public confidence or gaining public support when read by these pa-

trons in daily newspapers. It necessarily detracts all our minds from the point in issue—from increased costs of maintaining service to increased dividends to stockholders. If, therefore, the companies which are burdened with overcapitalization or unnecessary corporate complexity will put their houses in order fairly and fearlessly, they will have laid the foundation upon which they may establish public confidence and receive public support.

The valuation basis for rate-making purposes, in every State in the Union where regulatory authority is exercised, rests primarily under the law upon original costs and reproduction costs new; in other words, upon the fair value of the property devoted to public service. Upon that fair value every company is entitled to receive a fair rate of return in addition to the costs of operation, including the increases in labor and material items and a reserve fund for depreciation; and I am quite content to add an allowance, when tangibly expressed, for economies in operation, and I believe these allowances should be generous and not trimmed to the bone.

Are the electric railways willing to stand actually as well as theoretically upon these revenue grounds? If so, I need make no promises for the Pennsylvania Public Service Commission. Its deliverances from time to time—and some of which have been specifically called to your attention—are sufficient to establish that it will fearlessly and justly perform its duty with due regard to the carriers and the public.

Of course, operating costs, including increases for labor and material, must be met out of the imposed rates of fare. The public have no just ground for objecting, nor can I conceive of a public service commission's placing an obstacle in the way; but the problem is not fully stated in public's estimation by calling attention to the heavy increases in operating costs and to the materially lower net return. Between these two, to their minds, are numerous intervening factors, and inquiry into which we must turn our attention if we would emerge from the chaos of the present situation.

When an epidemic touches a locality its effect upon the individual depends in part upon any organic or fundamental physical weakness which that individual possesses. It is an axiom, I think, that disease usually makes its most sinister attack upon the weaker organ of the patient. A physician in diagnosis would be recreant if he did not, therefore, take into consideration these fundamental difficulties in each patient. While analogies are not always logical, it is without question that the high costs of labor and material, the lessened purchasing power of the dollar, perhaps the changing riding habits of the people, have borne down upon the electric railway interests of the land most heavily in places where there are fundamental weaknesses in corporate history, management, or general conditions.

Shall we stop short of inquiring into these weaknesses? If, then, these higher costs are liable to be continued, the companies in order to survive and meet the responsibilities of the new conditions under which they are called upon to operate must not deceive themselves. They must not gloss over any organic difficulties, if they exist, but even at the expense of much travail subject themselves to rigid self-examination. It has been remarked before you, I understand, that some companies have capitalized "hopes." It would be inex-

pedient for me to name or even have in mind particular companies; but making a composite statement of several to which my attention has been directed, let me inquire what you would recommend to public-service commissions who were seeking to determine the fair return in the cases of companies which, on outlays of from two million to three million dollars, without an additional rail, spike, car, or dollar of investment, capitalizing such properties at seven or eight million dollars. Where increases were not made on the basis of money invested or upon the physical value of the property devoted to public service, but the then or anticipated net incomes were capitalized, these incomes have necessarily been lessened by the increased costs. Naturally such companies do not wish to readjust their capital issues to meet present net incomes on the basis they were established, but they now desire to increase their income to meet their former increases in capital.

The payment by the public of a fair return upon watered stock on the ground that that stock had passed into the hands of widows and orphans, no matter how just or equitable it might appear to the advocate of such a policy, nor how strongly entrenched in law, nor persuasive the argument as an *ad hominem* appeal, would with difficulty secure a consenting riding public to support it, and would, of course, require changes in the organic law of every State regulatory body of the land; for valuation for rate-making purposes is by law based primarily upon original costs and reproduction costs new, neither of which would respond to such a suggestion. Moreover, we would then be confronted by a situation in which the company whose capital issues bore fair relationship to the value of its property devoted to public service faring much worse than the one burdened with watered stock.

I am deeply concerned then, as a public official charged with grave responsibility, with respect to the matters before you and acting in the interest of the public and these companies, that the carriers shall place their appeal for relief squarely upon the only tenable and legal grounds which would entitle them to consideration at the hands of the public-utility commissions of the land and not predicate their demand upon arguments and theories which, under the law, as it exists, would be bound to close the door of helpfulness of every regulatory body of the Nation.

If we are agreed upon the legal and equitable standards for fair value and a fair rate of return as the basis upon which the railways are entitled to relief, then I submit that in the larger aspect there are no regulatory difficulties, except perhaps in a negative sense, standing in the way of an adequate solution of the railway problems. The equation stands: adequate service on the one side and a paying public on the other. To create the ideal situation, the railway companies and their patrons must be brought into harmonious relations in which adequate service is rendered and reasonable and compensatory rates are paid.

At the risk of being trite and also redundant—it is recognized that the companies must have adequate revenues, sufficient to pay the cost of operation, provide for proper reserves, and to yield a fair return upon the value of the property devoted to public service. The public, of course, must, out of rates of fare, provide such reve-

nues; but it does not lie within the power of public utility commissions nor in statutory enactments nor with the deliverances of your distinguished body to provide a riding public willing to pay the imposed rates. The patronage to produce the required revenue must be obtained by the energy, efficiency, and business acumen of the companies. Against the fiat of any law, order, or recommendation of regulating or recommendatory bodies, municipalities, or legislatures, the public have a determinative veto, for they may still withhold their patronage.

In States and in localities where statutes or municipal ordinances have fixed rates to which companies have heretofore assented and which, under the law of those States, are beyond the regulatory authority of commissions to change, the barriers are legal and not administrative, and the relief must be found by appealing to the authorities which imposed and may remove those barriers. How can your distinguished body generalize over such conditions? They do not obtain in Pennsylvania. They do not exist in some other States. It was held by the Pennsylvania Commission, in an opinion which I had the privilege of preparing (Wilksburg case), that notwithstanding the constitutional provision authorizing municipalities to grant or withhold consent to the laying of tracks upon the municipal highways, when such grants were made and accepted by the companies with conditions fixing the rates of fare to be charged, the commission had authority to inquire into and determine the reasonableness of field rates which were in excess of those prescribed by ordinances. That opinion has recently been affirmed by the superior (appellate) court, and the legal barrier against imposing reasonable and, if need be, higher rates has not existed in Pennsylvania since the establishment of the public-service commission. The companies file their rates which, upon 30 days' notice automatically, without approval, become effective. If complaints are filed, the rates continue in effect until the commission makes a deliverance after hearing.

While this that I desire now to bring to your attention is not quite in the right place with respect to the line of my thought, it occurred to me that I might call your attention to an element in the Pennsylvania public service company law that is somewhat interesting. It is that all agreements between municipalities and public-service companies must be approved by the public service commission. If you will think of what flows from that, I am sure you will be appreciative of the benefits that result from that feature of our law, which, I understand, does not obtain in the statutes under which many public service companies of other States operate.

This establishes that the electric railways of Pennsylvania are operating under legal and regulatory conditions quite different from those obtaining in other States, a difference which, with due deference, I submit you are bound to note in your conclusions. Nearly all the electric carriers of the State were operating under municipal ordinance fixing rates of fare—I mean they were operating under ordinances which antedated the establishment of the public-service-commission law; and by the decision to which I have called your attention in the Wilksburg case, we held that those ordinances did not preclude their increasing their rates when these

increases were just and reasonable; and consequently all the increased rates that now obtain in the State of Pennsylvania are following the justification which they have under the decision of the public-service commission in the case referred to, which has been supported by the superior court.

Permit me to excerpt from the report in one case where there was a rate fixed by ordinance. The commission made this following pronouncement upholding a 7-cent fare as against a 5-cent municipally imposed rate:

To expect public service of these carriers without permitting them sufficient revenues to produce it is as fallacious in economic suggestion as to demand bricks without straw or to require faithful toil from the muzzled ox.

It is therefore a matter of ordinary business prudence and sagacity that the public generally should come to an appreciative understanding of what that service means to the industrial and commercial life of the State, and to each locality within it, and to recognize that the terms upon which it can be continued for their use and enjoyment are that it shall receive at their hands as ratepayers sufficient to furnish it.

If the public are to be adequately served, railways must be permitted to earn out of imposed rates of fare, revenues large enough in amount to pay operating costs, a fair return, and to provide for the maintenance of the property, provided always that the rates imposed are not unjust or unreasonable.

I call that to your attention that you may understand how the Pennsylvania Commission is attempting to support its decisions by presenting the fairness of them to the man who is the car rider and whose judgment as to conditions is not going to be influenced in large measure by the hearings that are had except as the results of those hearings are carried from day to day in the press. And I am calling these matters to your attention for the further purpose of stressing two points, that Pennsylvania, both in its law and under the commission's broad policy, has dealt fairly with the electric-railway interests of the State, and to establish before you that regulatory authority has not stood in the way of these interests obtaining adequate returns.

In that connection, you will be interested to note that we have upward of 130 operating companies in the State, with about 5,000 miles of track; and, as I am informed, not more than 8 are in the hands of receivers. Of these, 7 have 180 miles of track, and one has 605 miles. In other words, the mileage all hovers about the one company. For two of these companies receivers were appointed in early 1914. They operate 39 miles of track, so I am informed. Over two of them receivers were appointed in 1915, and they operate 60 miles of track. And the remainder were appointed later.

After some slight examination, and with some hesitancy about expressing an opinion with respect to individual companies, even in your presence, I feel it not unfair to these companies or to the commission or to the public to say that in every instance where receivers were appointed it was due, in very large measure, to special circumstances. In one of these cases it was a notable special circumstance. A small company had a railway accident in which a very large number of persons were killed. The resultant damages, as determined in the court, wiped out the capital of the company; and, of course, a receivership was absolutely essential.

In the largest of these companies, I am sure those most intimately connected with its activities would not seriously disagree with me in the statement that the difficulties of that company arose and were rapidly focusing long prior any of these increases to which you are devoting your attention at the present time. I think the inevitable tendency of that company, by reason of its corporate complexities and other circumstances, was leading it in that direction.

Regulatory authority when properly exercised is, therefore, not a primary obstacle confronting these utilities. In fact, in some of the larger States the want of such authority is manifest, and because of it companies have not been permitted perhaps to increase rates where rates ought to be increased.

In recent addresses I have adverted to the fact that no two companies have the same corporate and financial history. Their railways have been constructed under widely varying conditions; they serve different types of localities in which the congestion of population, geographic and topographic features, and riding habits play important parts. Take two of our largest railway companies: Each has been affected by the increases in labor and material. In the one, the company has met, in fact, anticipated, the demand for increased wages, has continued to pay accustomed dividends on its stock and interest on its bonds, and it has not increased its rates of fare, which are continued at the basic 5-cent rate.

The CHAIRMAN. Name the company.

Mr. AINEX. The Philadelphia Rapid Transit Co.

I quote briefly, in passing, from one of the newspapers of Philadelphia of Friday, August 8, with respect to that company:

The Stotesbury-Mitten management has announced a further increase in wages of Philadelphia Rapid Transit employees, this being in accordance with the terms of the cooperative plan of 1918, by which the management undertakes, with the employees, that the scale of wages here paid shall be equal to the average four cities, Buffalo, Detroit, Cleveland, and Chicago. While certain retroactive adjustments are made, as of July 1 and July 13, covering increases granted in Detroit and Cleveland, respectively, the sum of these increases, together with that of Chicago, is represented in the maximum scale which, following the action of the cooperative committees, will be made effective as of August 7, viz:

Elevated motormen, 61 cents per hour.

Surface motormen and conductors, 58 cents per hour.

Increases and adjustments in the wages of employees in other departments will be made in conformity with the plan. The total increase in wages paid to employees will represent considerably more than \$2,000,000 per annum.

The introduction of improved operating methods, including removal of wasted effort, has thus far in Philadelphia served to keep pace with increased wages and other costs, as against the alternative of raising fares.

Increasing fares in other cities has almost invariably resulted in reducing the number of passengers carried by forcing many who would and should be car riders to walk or use other means of transportation.

The remedy, it is believed, is to be found in doing everything possible to increase revenues by increasing the number of passengers carried and decreasing the cost of transportation.

Now, the other case: The second largest company—the company has gone from 5 cents by gradations to 10 cents—is in the hands of the receiver, and it is earning hardly enough to pay operating expenses.

And here I again stress the point of the error of generalization in seeking our remedies. With these two localities before us similarly

influenced by the wage increases and higher labor costs, it would lead to doubtful conclusions that either the 5-cent fare or the 10-cent fare were wrong when it is possible that with the other factors before us—topographical difference and difference in congestion of population—both may be considered reasonable.

The CHAIRMAN. Will you name the second-largest company you have just referred to?

Mr. AINEY. Pittsburgh Railways Co. In bringing these matters to your attention, I would do violence to my own personal convictions if I were to seek to have you gain that it was my impression or view that, because the Philadelphia company is able to operate on a 5-cent rate of fare, therefore all other companies would be able to do so. I am only trying to stress the point that overgeneralization with respect to remedies would lead us into confusion. I frankly say that there are differences, serious topographical differences, confronting the Pittsburgh company against which the Philadelphia company does not have to contend. But I did like to bring this to the attention of the commission, as I find the expression in the paper as evidencing that to which I shall later advert with your pleasure, the duty of these railway companies to consider the merchandising side of their responsibility.

Now, possibly you will find that some of these difficulties which differentiate companies arise from intercorporate complexities. I invite your attention to another economic difficulty which confronts some but not all the railways, expensive intercorporate complexities. An operating company of Pennsylvania typical of some others—I only mention it because I have the figures with respect to that—controls directly or indirectly by stock ownership or leases some 78—formerly there were 204—underlying companies with a complexity of intercorporate relationship, including numerous bond issues, rental charges, and overlying and overlapping agreements, and all surmounted by the holding company.

I frankly say that I do not think such conditions can, under this stress of modern requirements that are visited upon these companies, be longer justified from the standpoint of economy and efficiency any more than the placing of that many wheels in a watch is a prerequisite to its being a good timepiece.

Now, the expense of maintaining these corporations, the Federal tax, duplicated as it is, mounts into an enormous sum in almost all instances; and I venture to say, with two companies that I do not desire to specify in your record, that it would run from \$500,000 to \$1,000,000 a year in each of these instances. The expense of maintaining these corporations, together with the duplication of taxes, is a burden which ultimately comes out of the revenues of the operating company; and whether it comes out of a rate payer or whether it comes out of the fair return of the stockholders it is immaterial for my present discussion to consider. It is at least unwise to have that burden of expense. It serves no useful purpose either to the public or to the railway.

Of course, it is a matter which, at least in Pennsylvania, must be adjusted by the companies rather than by the commission, but it is important, I think, for your consideration.

I hesitate to mention specific things because I do not desire to get very far beyond the point of the semijudicial attitude which I feel that commissions can always well occupy and to invade the administrative responsibility which rests, and ought to rest, in order to the highest efficiency, upon each company. Were I to criticise commission regulation, it would be in the fear that sometimes it might interfere with that initiative which ought to rest with the companies, and enable them to be the most efficient public servants. I do not believe that it is a wise thing for commissions to substitute their judgment, with respect to many of the operating responsibilities that come upon the company, for the company judgment. They should correct evils and errors when they see them, rather than to decide which of two methods, either of them reasonable and legal, ought to be adopted by the companies. And therefore I shall hesitate very much in attempting to discuss, or permitting myself to discuss, which of two methods, if I were the president of a railway, I would adopt in one thing or the other.

But there are some companies carrying passengers for distances which, at most rates, are less than the cost of the carriage. Why should there not be some readjustment of rates to avoid these inequalities? When the short-distance rider awakens to the fact that he must be charged a larger rate in order to give some other person a partially free ride, there ought not to be any serious local difficulty in accomplishing the change. Whether that readjustment should be made upon a strict zoning basis I am not at all convinced but prefer to leave the matter under the general statement that rates of fare must be based upon some fair proportion to the service rendered.

Is it too much to ask that companies give careful attention to economies in operation? Surely the Philadelphia situation is, to a very considerable extent, the result of their studies. And I have been now watching with some interest to see if you had invited, or if there had appeared before you, the representatives of that company who could give you, out of a page of their successful experience, that which, to a very large degree, is somewhat theoretical and perhaps somewhat removed as it comes from the mouth of the present and possibly other witnesses.

The CHAIRMAN. Can you suggest the name of the best person for us to invite?

Mr. AINEX. Well there is a representative of that company present, and I would prefer not to suggest anyone. I presume Mr. Joyce will take cognizance of that and speak to the chairman.

I am going to take the liberty, though, of just briefly referring to that which otherwise I would not, the so-called cooperative plan of the Philadelphia Rapid Transit Co.; and I am doing so because Mr. Joyce, this morning, was kind enough to hand me a copy as they send it out. And if you desire that I shall file that, I shall be very glad to leave it with you.

The CHAIRMAN. Yes.

Mr. AINEX. I think you will find it very interesting. It shows how the Philadelphia Rapid Transit has been able to deal with its labor problem; and I think if there be any feature of success that might be well stressed it is the cooperative labor scheme under

which the employees and the employer conduct the Philadelphia Rapid Transit. And it has led to efficiency in management—and efficiency always means economy—and it has led, in my own personal experience, to a politeness in dealing with the public on the part of the platform men that I have not always experienced in other cities.

Commissioner SWEET. Perhaps, Mr. Joyce would furnish a copy to each member of the commission. Would you?

Mr. JOYCE. Yes, Mr. Commissioner; I can do that.

Mr. AINEY. Of course, if there is any particular point in anything I have said, I think it would arise out of the desire which the public-service commission has sought to emphasize in its contact with utilities and the public, and that is, to attempt to establish the most cordial relations between them and the public. If we are not able to function in that way, nine-tenths of the value of our service is lost, and therefore the cordial relationship that we desire to have established at all times between the public and the companies, in order that the service may be adequate to the public need and in order that the company may be provided with funds with which to render that adequate service, leads me to view with jealous care anything that comes up to interfere with that relationship.

Let us assume that each company has reached the goal of economic efficiency and each company has done its part and the required gross revenue is to be raised by rates of fare. Here comes the severe test of operative discretion. The gross amount to be raised is made up, of course, of two factors—the anticipated number of passengers and the rate of fare to be applied to that number of passengers. Is it not an axiom of everyday business judgment that patrons should be retained and others gained if it is possible to do so?

I shall not burden this commission with any extended discussion of this phase of the question. This, too, is a matter involving the exercise of the business judgment in the light of local conditions, congested centers and study with respect to potential riders.

In two recent addresses I have discussed at some length the influence of the rate of fare on the riding habit and have sought to emphasize the fact that the street-railway companies might profit by the merchants' experience and methods. Having car rides to sell, why should not the companies adopt adequate methods for selling the rides? The percentage of increase in rates has not followed by the same ratio the increase which they have made in revenues. Increased rates have, in many instances, been followed by a flattened curve in the number of car riders. It has been pointed out, of course, that that flattening of the curve has at times been caused by unusual conditions—for instance, the winter of 1917-18, the draft, and by the later epidemic; and undoubtedly those had very material influences upon the riding habit at that particular time.

And it has also been noted that the jitney and private automobile have taken away a considerable number of patrons. Nevertheless, there remains a very appreciable number who have been influenced by the rate of fare; and, of course, no business house would be content to lose such a large percentage of its customers without making a stupendous effort to retain them. Many of these lost

patrons would not be casual ones but permanent ones. Is it worthy of suggestion to the railways that in some localities, monthly commutation tickets at a lower rate might be established, as the railways have done?

This matter must be measured not only in the terms of the revenue of the company but by the potential good will of these riders in their respective communities, a good will that is reflected in local political sentiment and otherwise. I look upon the loss of car riders as being a serious menace to the well-being of any company; and it is not an answer which should satisfy the companies that increased fares give them a revenue sufficient to meet their needs, if it has to be secured from selected patrons at the loss and consequent cost of a considerable number of their former patrons.

We frankly say that all these matters do not affect all of these companies, and no doubt many of them are wholly free from many of these problems that I have adverted to; but where they do exist that company can no longer afford to ignore them in its own interest as well as that of the public.

Let me say in conclusion that the public and those charged with administrative and legal responsibilities will welcome from your distinguished body a clear and definite statement of the facts which confront the railways.

First, they should be advised of your conclusions as to the extent to which increased costs have entered into railway expenditures.

They should be advised by you as to the basis upon which you would grant or withhold increases to meet the situation. And you could clarify the issues very much if you eliminated some of these impressions, falsely grounded probably, but which confront the Public Service Commission of Pennsylvania in practically every rate case that comes before us, irrespective of whether it is a railway or affects other utilities.

Third. Your deliverances could well clarify our vision with respect to the importance of the railways in carrying on our business, and advise us in a definite way as to the results which would follow the failure to provide adequate revenues.

The public, the railways, State commissions, municipal authorities, legislatures, and executives have several duties and responsibilities, the performance of which awaits in some instances definite utterances and programs as expressed by your body.

The interdependence of the railways and the patrons can not be overemphasized, in which the railways must supply the service and the riders must provide revenues.

The injustice to the car rider as well as to the company and the economic fallacy of certain franchise restrictions imposed on the carriers should be corrected.

Railways, if they are to be continued, must be operated under conditions not heretofore confronting them. The jitney, the autobus, and private automobile have no doubt deflected many fares. Their advent in such large numbers has not only affected revenues, but it has placed a competitive service in action, in a sense; and these public and private competitors must be met by a readjustment of the operating conditions by the railways, if the railways are to survive.

If they are to survive, they must meet that competition, whether it is private or public, by efficiencies and economies in operation. And there is a wide range for study and recommendation in these respects.

Too long rides for fares less than cost are sometimes provided. The short-distance rider, of course, foots the bill.

Coal must produce more current, cars more riders, and miles of track more service.

Some railroads were constructed with more optimism than good judgment. Without patronage to support them, of course they can not survive, and we can not burden our statistics in such cases.

I might pause to say that I am fully convinced that under the competition of the privately owned automobile there are certain mileages of track in Pennsylvania that serve no longer a real public use.

Jitney service where it exists must be a regulated service.

On the part of companies corporate complexities should be eliminated where possible for them to be, and if it holds any promise there must be some spare relationship between capital issues and property devoted to public service. And the mind of the public should be clarified by your deliverances on that point.

I thank you, gentlemen.

The CHAIRMAN. You state there are 130 operating companies in Pennsylvania, of which 8 are in the hands of receivers?

Mr. AINEY. I think 8. I had to get that hurried information yesterday morning from our bureau; and in the hurry of the call he gave me a tabulation of 8 companies.

The CHAIRMAN. And about 15 per cent of your mileage is affected by those receiverships?

Mr. AINEY. Well, yes; about 15 per cent of the mileage is affected.

The CHAIRMAN. All but two of these companies went into the hands of receivers before we entered the European war?

Mr. AINEY. Yes.

The CHAIRMAN. And the other two, you think, were heading that way and would eventually have gone into receivership?

Mr. AINEY. I think every receivership, without exception, in Pennsylvania can be attributed to other causes than the war—other primary causes, focused, it is true, by reason of these increases.

The CHAIRMAN. What is the prevailing rate of fare in your State?

Mr. AINEY. We have no prevailing rate of fares in our State.

The CHAIRMAN. Are there many companies operating on a 5-cent fare?

Mr. AINEY. I am not able to tell you how many are operating on a 5-cent fare, because with the enormous number of utilities that are under the jurisdiction of the Pennsylvania Commission—we have 3,750 I think—only those to which our attention has been directly called are those from which I could answer.

I do not recall any of the larger companies operating on a 5-cent fare except the one to which we have adverted.

The CHAIRMAN. Philadelphia?

Mr. AINEY. But there are other companies that are of considerable size. If that would be serviceable to you, I would be very glad to have the chief of our bureau give you a list of these companies with the rates of fare and the percentage applied, and file that with you, and that will be more definite than any statement I can give.

The CHAIRMAN. Under your law companies can file rates which go into effect without the approval of your commission?

Mr. AINEY. Yes.

The CHAIRMAN. Are you advised whether many such applications have been filed?

Mr. AINEY. Many such rates have been filed.

The CHAIRMAN. Many such rates have been filed within the last two years?

Mr. AINEY. I think to a very large extent the 130 companies have increased their rates. Probably most of the rates that were filed increasing—or many of the rates which were filed—increasing rates of fare were where companies were operating in municipalities which had imposed upon them a condition fixing the rate, and were met by objections that the constitutional protection of municipally imposed rates was such that no higher rate could be obtained; and those were the primary questions raised before the commission. There were a very large number of complaints of that kind.

The CHAIRMAN. Looking at the industry in your State as a whole, can you say whether it is or is not in a serious financial condition?

Mr. AINEY. I think there are some companies in our State that are and some that are not. To avoid answering your question either yes or no, I would like to say this, that I think that all companies in our State are in duty bound to scan with greater care their expenditures and to resort to operating efficiencies as perhaps they were not inclined. With that general statement, I think that in the main the companies in Pennsylvania are in good operating condition.

The CHAIRMAN. Do you believe that as far as Pennsylvania is concerned there is any reason for the appointment of this commission?

Mr. AINEY. Yes; but more in line with the suggestions which I have made. I think that all the utterances that can be made by disinterested and distinguished bodies, and particularly one called together under the high authority which gathers you here, which would relieve the minds of the public—which, to a considerable extent, is the public mind—that the railways were not entitled and were not seeking—if you can find such to be the fact—relief to pay on exorbitant overcapitalization, would help us administratively to make our ordinance useful to the public and would be helpful in enabling these companies to win street-car riders.

The CHAIRMAN. You mentioned one company that had an investment of about \$4,000,000 and a capitalization of something over \$7,000,000. Did you name that company?

Mr. AINEY. I did not.

The CHAIRMAN. Do you care to do it?

Mr. AINEY. I do not. It is a composite statement. I purposely made it a composite statement because I do not wish to carry those into the record.

The CHAIRMAN. Does that reflect the common practice among utilities in your State?

Mr. AINEY. I do not think so. That is, I do not think it represents a common practice to the degree—of course, it is hard to say, as you go back into the history of the company, whether that overcapitalization exists or whether it was trivial or whether it was serious, except as you have an actual investigation of the company. And we do not undertake any preliminary investigation until after complaint is filed.

The CHAIRMAN. Is it your practice to make a physical valuation of the railroads in all rate cases which are tried before you?

Mr. AINEY. No; it was the policy of the public-service commission during these unusual times to avoid valuations where we could. For instance——

The CHAIRMAN. Have you made many valuations?

Mr. AINEY. Yes.

The CHAIRMAN. Where these have been made have you determined that there is excessive water in the plants?

Mr. AINEY. Well, we have—you mean officially determined that?

The CHAIRMAN. Yes.

Mr. AINEY. I would have to call your attention to the fact that stocks and bonds have no place in our valuation program except they have a market value, and therefore they do not enter into the answer which we give.

The CHAIRMAN. Well, to put it another way, have you found your value is more or less than the outstanding capitalization?

Mr. AINEY. Both.

The CHAIRMAN. Which prevails?

Mr. AINEY. Oh, I could not give you an answer to that.

The CHAIRMAN. But it would be of very great assistance to you and the public if a means could be adopted which would eliminate any prejudice against companies due to overcapitalization?

Mr. AINEY. Yes.

The CHAIRMAN. Would a physical valuation meet that situation?

Mr. AINEY. I think so.

The CHAIRMAN. Then, is not the first requisite in efficient regulation of utilities the establishment of a physical value, or a true value, upon which rates can be predicated?

Mr. AINEY. Yes; and the reason that the Pennsylvania Commission did not undertake that in all cases was because of the emergency conditions which confronted us, and the remedy which would have had to be postponed for a long time would have been as serious as any error of judgment which the commission might make in attempting to determine what the rate of fare would be for a definite period.

Take a case that was adverted to by one of the witnesses yesterday. We did not have a physical valuation in that case, but for a limited period of time, under all the evidence that we could get and in order to do the best we could, we reached a conclusion and we fixed a rate that would not be operative longer than a year—and part of that rate only operates in six months—to test out what the result would be in getting back the car riders. Now, had we taken the other and gone into a valuation of this property, during the intervening time we would have had no commission rate, and it was certainly much more satisfactory both to the carrier and to the local community that we attempted a short method. The commission has endeavored to preserve the interests of the public and of the carriers during these unusual times in which it was impossible to engage in valuation work.

The CHAIRMAN. Do you believe that the street-car question is essentially a local one?

Mr. AINEY. Well, it is certainly local. Immediately you get by the admittedly increased costs of labor and materials, I think that

every railway in Pennsylvania that has no heart disease—to follow the figure of my remark as I made it before you—has no fundamental weakness that is applicable to it and not applicable to some other company, will have no difficulty other than the difficulty of going out just as the merchant goes out to sell his goods, to get his return.

The CHAIRMAN. Now you said that in your State the fares vary from 5 cents up to 9 cents.

Mr. AINEY. Well, we have 10-cent fares.

The CHAIRMAN. Ten cents. And therefore there can be no fixed rule as to fares to apply to the industry in your State?

Mr. AINEY. No.

The CHAIRMAN. Of course, that is true. What does it necessarily follow from that? That there are not certain general principles of regulation which are applicable to all industries of that kind?

Mr. AINEY. Yes, unquestionably; that is the one thing that I have suggested would be very helpful to us and them in Pennsylvania—if the railway people could advise the public that the basis upon which they seek relief does not include in it some things that would not gain the public favor.

The CHAIRMAN. Is it your idea that paving requirements should or should not be charged against the company?

Mr. AINEY. If I were to answer that I would have to answer it as a purely academic question. They are charged against the company, in many instances. It is not within the jurisdiction of the commission to change that.

The CHAIRMAN. Is it a substantial burden upon the companies?

Mr. AINEY. I think so, in some instances.

The CHAIRMAN. Is it such a burden that it is in the public interest to relieve the company from it?

Mr. AINEY. I think in some instances it is.

The CHAIRMAN. Do you think that a general rule could apply, or is it something that could be governed by the local conditions?

Mr. AINEY. I think to a certain extent you must give some attention to local conditions. My mind, as I am trying to resolve your question, would say that the burden of the street railway on the streets of some cities is quite different from the burden in other localities. I do not think that the imposition of these burdens should be in the nature of a revenue base to the community.

The CHAIRMAN. Do you know if the Philadelphia company pays these assessment charges?

Mr. AINEY. I would rather the Philadelphia company would answer that question.

I trust, gentlemen, inasmuch as all of these companies are liable to be before us, that I will not be asked questions that would put me in the position of either declining to answer them or of prejudicing a case that might come before me.

The CHAIRMAN. If, in my examination, I ask you any question that would tend to embarrass you in that direction at all, I hope you will mention it. Of course, I do not want to go into any such matters.

Mr. AINEY. I appreciate that. You have been very fair and very courteous to me.

The CHAIRMAN. I surely do not want to embarrass you at all.

Mr. AINEY. As a general statement, I think that in many instances there have been imposed burdens upon many utilities requiring, at the hands of municipalities, consent to operate in local territory, and that has arisen largely because of the utterances of our own Supreme Court in an earlier day, when probably one of the most learned of our judges, who occupied the bench of that distinguished body, emphasized very strongly, in frequent opinions, that franchises belonged to the people and were exceedingly valuable and ought not to be handed out to private corporations or semipublic ones unless there was a very appreciable return that would go into the public treasury of that local municipality. And that has led to conditions in certain places in Pennsylvania.

The CHAIRMAN. Your franchises are all limited in time?

Mr. AINEY. Some of the modern ones are not.

The CHAIRMAN. What is your opinion with respect to the franchise? Should it be for a limited period or should it be perpetual, subject to the right of the public to purchase?

Mr. AINEY. Our own decisions with respect to it—and now, in answer to that, I had better bring forth for your enlightenment in regard to our local conditions this thought that I mentioned a moment ago: The public-service commission is now able to control, in large measure, the future with respect to franchises, because we have to approve them. They come before us. Therefore it seems to me that the remedy for the future is already in the hands of the State through the medium of the public-service commission.

The CHAIRMAN. Generally speaking, what is the term of life of the new contracts that are being made?

Mr. AINEY. You mean street-railway contracts?

The CHAIRMAN. Yes.

Mr. AINEY. I do not recall a single street-railway contract that has come to our attention. I do not know of any.

Commissioner GADSDEN. There are not apt to be many more new ones built; are there?

Mr. AINEY. Well, possibly I ought to withdraw that. The municipality—the city of Philadelphia, I think, is attempting to build a very large amount of railway, and your colleague can probably give you more definite information as to the extent of that than I can. I think some \$140,000,000 was the anticipated amount.

The CHAIRMAN. Have you given consideration to the features of the indeterminate franchise?

Mr. AINEY. No; not in a way to be enlightening to your commission.

The CHAIRMAN. As far as your study is concerned, do you feel that if properties are properly valued and the law is left as it is, that your commission will be able to deal fairly by the companies and the public, and that most of these utilities will be permitted to give proper service?

Mr. AINEY. I notice that Mr. Tingley and President Pardee shook hands with me when I came in, as did also the distinguished mayor of Scranton. I am rather inclined to think that we have established a basis of confidence on the part of the utilities and also on the part of the thinking public as to the fairness of our deliverances and the justness of our conclusions.

Commissioner GADSDEN. Perhaps they are practicing some of that good policy that you have suggested.

Mr. AINEY. I read one of the decisions of the commission to evidence that we were. We have been perfectly fearless in our utterances. I want to say, gentlemen, that we have been perfectly fearless in our utterances with respect to what we thought were the rights of the utility and the rights of the public; and it has even been adverted to that possibly the statement which I read was rather strongly stated; but that was a particular case where we felt it ought to be. The only defense in that particular case that was put up was the fact of a contract, and because there was a contract this company must be held to it, even to the destruction of the property.

The CHAIRMAN. Is there a pronounced sentiment for municipal ownership in your State?

Mr. AINEY. I do not think so.

The CHAIRMAN. Has your commission given consideration to the cost-of-service plan, or have you, individually?

Mr. AINEY. No; we have not.

The CHAIRMAN. Then you are not willing to comment upon that plan?

Mr. AINEY. Any comment that I might make would not be based upon sufficient experience or knowledge to be valuable, and I do not wish to get into the theoretical. I have theoretical views on it, very strong and positive ones; but practical experience might turn those down. I would prefer not to give any expression in regard to it. It would not be helpful to you, and it would not be one that I would be willing to bind my own mind upon.

The CHAIRMAN. Of course, I must venture to contradict your statement. I think any opinion from you, theoretical or practical, would be of very great value to this commission.

Mr. AINEY. Let me answer it, then, indirectly. I have not got to the point of where I believe the public will get the best service except that the initiative for that service is in the hands of private interests, largely uncontrolled, except to the extent that it must at all times be a reasonable service, and must be at a reasonable rate. I have no reason to doubt that the present methods are adequate, in Pennsylvania.

Take Pittsburgh: The whole talk that has arisen there on the part of a few with respect to municipal ownership arises out of the inability of that company, over a number of years, to function. If it had functioned as other companies in Pennsylvania have functioned, you would not have heard anything, even locally, with respect to the claim for municipal ownership.

The CHAIRMAN. Has your commission instituted zone fares in any place?

Mr. AINEY. No; and we shall not.

The CHAIRMAN. You are opposed to that system?

Mr. AINEY. No; I am not opposed to it. I think there are elements of very substantial equity in the zone system, but still, leaning back—until some company that believes that the zone system is the proper kind of a system and the proper method, and puts it into effect, and it is tried out in the house of its friends, I think it would be a dangerous thing to enunciate a general policy to have

that theory tried out in the hands of the lukewarm or of those who are opposed to it.

The CHAIRMAN. Have you not got the plan in Pittsburgh?

Mr. AINEY. The zone system?

The CHAIRMAN. Yes.

Mr. AINEY. Oh, no; not the zone system in Pittsburgh, properly speaking. I am not familiar with just what is involved in this new application of the 10-cent fare. I am going out to hear that on the 20th. I take up the hearing of that case then. But take the one just before: They had a combination, 5 and 7 cents. That, to my mind, was very unwise, and did not work out; and I think I took the liberty of saying to the gentlemen, both on the part of the city and on the part of the railway, that I did not think it could work out. Probably Mr. Welsh has the figures that would carry it down. I have no figures with me with respect to it. I do recall, however, that over a short period of time in the application of that, it worked out badly; but it did not work out badly in a way to either prove that a zoning system was the improper method or to establish that it would be. They made a central area in the city of Pittsburgh—

The CHAIRMAN. That method has been explained here.

Mr. AINEY. Then it is not necessary for me to go into it.

Was it explained to you that for a considerable period of time, at least, there was a very large increase in the riding habit under the 5 cents, which was not the increase, and was in the territory where they did not expect any increase in the riding habit; and that where the 7-cent fare was in operation, and where there might have been a reasonable expectation of an increase, they did have no increase, but they had not only the loss that they measured—10 per cent on 200,000,000 passengers—but they lost about ten or twelve million more on the yearly basis?

Commissioner SWEET. I understand you to say that you have been following up, to some extent, the proceedings of the commission and the testimony that has been given here?

Mr. AINEY. Yes.

Commissioner SWEET. Perhaps you have noticed that heretofore on several occasions the Pennsylvania Commission and the Pennsylvania law with regard to public-utility commissions has been referred to?

Mr. AINEY. I have not; no, sir.

Commissioner SWEET. Of course, the publicity that would reach you would be, necessarily, somewhat limited in extent?

Mr. AINEY. Unquestionably so.

Commissioner SWEET. But permit me to say, for your information, that that is the fact; and, so far as I am aware, always in a complimentary manner, both as to the law, the method by which the public-service corporations may increase the rates, and the way in which the commission is authorized to pass upon them, and the way in which the commission has passed upon them; they have all been referred to, I think, in rather a favorable and complimentary way.

Mr. AINEY. I assure you that that is very gratifying to me.

Commissioner SWEET. I want to say that I am very glad indeed that you have been willing to come here and give us the benefit of

your information, so as to help us in what I regard as the two essential features of our work:

One, the gathering of facts which must necessarily come from a more intimate knowledge of what is being done and what has been done and the actual system in different localities; and the other, a point upon which you seem to be a trifle reluctant to speak, and that is your own opinion on the general situation and the remedies for the situation that exists. Because upon those two things we are, in the final analysis, obliged to reach our own conclusions—largely upon the facts that exist, and the opinions, the advice that is given to us by experienced people who have given much longer consideration to this subject than we possibly can as to what are the proper remedies.

So I want to ask you a few questions that will bear somewhat upon the general subject, because I think you have gone very fully and satisfactorily into the Pennsylvania situation and have been very helpful in telling us what that situation is.

You have referred to the possible benefit that may accrue to the country from the work of this commission. Let me ask you if you do not agree with me that it is along those two lines, practically. Don't you think that the education of the public—by which I mean placing before the public the exact facts as they are, good and bad—if possible, in such a way that the public will feel that it knows all about these companies, will go a long way toward solving the difficulty?

Mr. AINEX. Yes; I do. I think that. But I would like to add to my answer that I believe it would be exceedingly helpful, both to you and also to the Pennsylvania Commission—and I will not attempt to speak for my associates on other commissions—if our railway operators would, in and of themselves, clear away any misconception as to their demand for that which the public thinks they are demanding, and which the public thinks they are not entitled to—that would be helpful. It is only the outer fringe of the great problem that you are interested in studying. It is only the psychological question which, after all, is the most serious thing we have in Pennsylvania.

I think our law works very well. I have still some confidence that the commission is able to deal justly with the problem. I have some assurance that the public in Pennsylvania, both loser and winner in the particular cases, has confidence in the decisions of the commission; but anything that might be said, even in Pennsylvania, that needs, in my judgment, the least relief at your hands would be helpful. And if that could be predicated upon a statement by these companies that they do not ask, do not demand any of these things that are in the public mind that they are demanding and that they are asking—and a type of which was shown by the utterances of my distinguished friend who closed your hearing last night—it would be helpful in framing public opinion. Can there be any doubt of that?

Commissioner SWEET. I think not. It seems to me that in each particular case where a street-railroad company is in distress, it is absolutely essential that the public should be fully informed as to all of the facts connected with that company, its capitalization, the value of its property—and that, undoubtedly, should be arrived at by some process that will be perfectly satisfactory to the subject—and the purpose of the company should be clearly stated, as you say,

so that the public may know exactly what the situation is and what is wanted; and then is it not your opinion that the public, so advised, will, as a general proposition, do the fair thing?

Mr. AINEY. Yes.

Commissioner SWEET. I think so, too.

Mr. AINEY. Unquestionably.

Commissioner SWEET. I have felt a little disappointment at one thing you said, because it indicates that the publicity that is given to the hearings has not, as I see it, been quite fair; and that is that you have derived the opinion from newspaper notices you have seen with regard to these proceedings that a demand is made by the companies for a return upon overcapitalization or watered stock. So far as I can recall, I do not remember that that has been their attitude. In fact, I know that in most cases it has been exactly the reverse.

Mr. AINEY. Mr. Commissioner, I certainly have not made my position plain if you gathered that impression from me. I did not mean to intimate that I thought that the railway companies had——

Commissioner SWEET. Not that you thought that they had, but——

Mr. AINEY. Or that they had made such a demand before you.

Commissioner SWEET. I thought you said you had seen newspaper statements to that effect?

Mr. AINEY. I have seen newspaper statements to that effect and the names of the individuals who made the statements have been carried. I have purposely avoided giving prominence to them. The newspapers have headlined them. Now, I say if going out coextensively with those statements would be a plain declaration on the part of these railways that they were not asking that—and I am thoroughly satisfied that the position of the railways is just and right in respect to it; but it is not sufficient to leave it without giving it the same emphasis that these unusual expressions give, which I am thoroughly satisfied do not meet the views of the railway people generally; but an extreme statement is the one that is always picked up and the one most frequently read; is it not?

Commissioner SWEET. Yes.

Mr. AINEY. I want to put that right beside the extreme statements—which I am sure probably might not represent 1 per cent of the people who have appeared before you; but the public can not gauge what is going on before you, and they are very apt to say: "Oh, well, that is what the railroads are down there arguing for."

After all, you are dealing with people who are not trained with respect to these problems. You are dealing with people as you might gather them in a jury box; and your appeal, and the railway company's appeal, in the final analysis, is the appeal that must be made to a body of 12 men sitting in a jury box; and I am keeping the good will of those men in mind—their opinion not in a technical way, but with respect to the underlying qualities: First, the demand on the part of the plaintiff, clearly defined, and then the defense which the defendant puts up. Then they will reach the verdict of support, or withholding their support.

Commissioner SWEET. Of course, you realize that no one connected with this commission, and none of the witnesses that appear before it has any control over the publicity that the newspapers may see fit to give to what occurs here; and if misstatements are made, or if

statements are made that are somewhat peculiar, quite different from the general run of the statements, and they are unduly emphasized by newspapers, it is something we can not help.

Mr. AINEY. But, Mr. Commissioner, why should there not be a plain declaration upon the part of the railway people before you—a composite statement of what they demand? I have heard nothing of that kind, except it is involved in that statement there. Why should there not be a clear-cut statement?

Commissioner SWEET. I do not know of any reason why there should not be.

Mr. AINEY. It would clarify the issue.

Commissioner SWEET. Possibly that may be true. From the standpoint of the commission, Mr. Ainey, let me state that our view of our function is to elicit from those engaged in the business, from those representing the general public, from those representing the employees of the street railroads, and from every possible source, all the information that we can; and no matter how peculiar the ideas may be that are expressed before us, we have no responsibility whatever with regard to that.

Mr. AINEY. Not at all.

Commissioner SWEET. We simply receive it and endeavor to give it whatever weight it is entitled to.

Mr. AINEY. I would be very glad if my friends of the railways would offset those statements which I have referred to.

Commissioner SWEET. Now, Mr. Ainey, you have compared the manager of the street-railroad company to the merchant, in respect to going after business and aggressive methods, I think, to a certain extent, have you not?

Mr. AINEY. Yes, sir.

Commissioner SWEET. Of course, you recognize one very great difference, and that is that the merchant has been able to adjust his prices according to conditions, whereas the street-railway manager, as a rule, has not, under franchises that have limited the fare?

Mr. AINEY. That is so, outside of Pennsylvania. It is not so in my own experience, of course.

Commissioner SWEET. I understand that. But you know that to be correct?

Mr. AINEY. Unquestionably so.

Commissioner SWEET. Where the rate of fare is limited by the franchise?

Mr. AINEY. Yes.

Commissioner SWEET. That inflexibility which exists in many parts of the country produces a rather unjust and undesirable condition; does it not?

Mr. AINEY. That produces a legal barrier against the exercise of the ordinary regulatory authority of the commissions in that particular case, turning it back into the commission line of thought. It is a legal barrier not an administrative difficulty that confronts them.

Commissioner SWEET. That is true.

In your judgment, ought there to be in all cases flexibility with regard to the rate of fare?

Mr. AINEY. You mean ought the rate at all times to be responsive to the conditions?

Commissioner SWEET. Yes.

Mr. AINEY. Surely so.

Commissioner SWEET. Have you given any attention at all to the Cleveland plan?

Mr. AINEY. No. Well, I want to say that in a limited sense.

Commissioner SWEET. No special attention?

Mr. AINEY. No.

Commissioner SWEET. You know, in a general way, that they are getting along pretty well in Cleveland?

Mr. AINEY. Yes.

Commissioner SWEET. Under a service-at-cost plan?

Mr. AINEY. Yes.

Commissioner SWEET. But you would not care to express any opinion as to the desirability of adopting that plan?

Mr. AINEY. Any more than I would want to express the opinion as to the desirability of adopting any particular plan in Philadelphia, where they are getting along very well.

Commissioner SWEET. You have stated, and I think very justly, that no detailed plan could be possibly suggested that would be applicable to all localities, that they have their local problems, and must adjust them according to their necessities and conditions?

Mr. AINEY. The two companies I cited are the best evidence of that.

Commissioner SWEET. Certainly. It is undoubtedly true.

In connection with the usual provision in franchises with regard to paving between the tracks and a foot or two outside have you given thought to the fact that it is placing a burden upon the car rider, whose nickels must ultimately be resorted to for the payment of that expense that ought to be borne by other parts of the community rather than entirely by the car rider?

Mr. AINEY. Yes; my mind has been leading me along in the consideration of that problem.

Commissioner SWEET. Is there not, in the adjustment of this question, and as quite an important part of it, a consideration as to what is right and just as between one part of the community and another?

Mr. AINEY. If I understand your question, you are differentiating now between the inarticulate public and the articulate public constituting the municipality. Do I follow you there?

Commissioner SWEET. What I have reference to is this: If the street-car rider is paying for paving expense or any other expense so that, in order to produce a proper return that you have already very clearly described, he pays a higher fare than would otherwise be required—if it is something like the paving of the street that either the abutting property owner or the general public might more properly and justly pay—don't you think the attention of the public ought to be called to that fact and the atmosphere cleared, so that the rights and justice of the matter might be determined?

Mr. AINEY. Yes, Mr. Commissioner; I think no greater service could be rendered by your commission than by a well-supported declaration upon that question.

Commissioner SWEET. Is it your opinion that the best public policy requires that the rates of fare should be just as low as they can be

consistently with producing the amount of revenue required to do what you consider it to be necessary to do?

Mr. AINEY. I have said to the contrary a moment ago. I think that utilities and carriers should have revenues generously sufficient; and I have adverted, in your presence, to an allowance over and above that for operating costs, for reserves for depreciation, and for fair return which might enter into fair return, if you please, and that would be a recognition of efficiency and economy in management.

Commissioner SWEET. I think perhaps you did not catch my question. I will ask the reporter to repeat it.

(The reporter repeated the question as above recorded.)

Mr. AINEY. Oh, I think in a general sense that is true, but I do not mean thereby that we should pare to the bone in determining what those rates are. I agree with your statement, absolutely.

Commissioner SWEET. You have made that perfectly clear in your direct examination that you want to be generous with the company; but that is what I referred to in the latter part of my question.

Mr. AINEY. Yes.

Commissioner SWEET. But in accomplishing that purpose, I wanted to know whether or not you consider it to be good general policy to make the fare just as low as it consistently can be.

Mr. AINEY. Yes.

Commissioner SWEET. In other words, you look upon the street railroad as primarily being for the service of the public?

Mr. AINEY. Yes; otherwise I presume I would not be a public-service commissioner. That is the theory of my appointment, I suppose.

Commissioner SWEET. Can there be any reasonable question about that?

Mr. AINEY. I do not think there is any ground for differentiating adversely to that thought.

Commissioner SWEET. Then from an economic, as well as a sociological view, the matter of low fares and the more general use of this utility are desirable?

Mr. AINEY. Yes.

Commissioner SWEET. In the raising or granting of any raises of fare, you have taken, unquestionably, very great pains to consider that phase of the question and do justice, as far as you could, to the street-car rider as well as to the company; have you not?

Mr. AINEY. Yes.

Commissioner SWEET. And that is really essential?

Mr. AINEY. Yes.

Commissioner SWEET. You have also, of course, given consideration to the demands of labor in connection with employment upon street railways—very serious consideration?

Mr. AINEY. We have given consideration to the amount of those demands.

Commissioner SWEET. To the amount of those demands?

Mr. AINEY. As reflected in operating costs.

Commissioner SWEET. It is a very large percentage of the cost of operation of a street railroad?

Mr. AINEY. Yes.

Commissioner SWEET. And necessarily forms a large part of the expense?

Mr. AINEY. Yes.

Commissioner SWEET. Have you any distinct views that you would be willing to express as to whether strikes in connection with street railroads or transportation matters ought to be prevented or restricted by law?

Mr. AINEY. As a private citizen, I have; but you are carrying me now, Mr. Commissioner, into a realm that, functioning as a public service commissioner, is outside of our jurisdiction.

Commissioner SWEET. I understand that.

Mr. AINEY. I have no hesitancy in giving a private opinion—but I dislike very much to intermingle my private opinions with respect to policies with the commission authority, because those reading it might assume, immediately, that it was my official view. We have had efforts made to interject the labor controversy before our commission. Had we jurisdiction in the premises we would, of course, fearlessly undertake the consideration of that subject; but in a decision which we made some year or so ago we took occasion to say that that was a closed door so far as our authority was concerned, and therefore, it being a closed door to us, we felt that we would not open up an academic discussion of it.

Commissioner SWEET. I did not know but that perhaps you might be willing to give your personal opinion on that, and that if you could, in view of your experience, we would be very glad to hear it.

Mr. AINEY. You must bear in mind, Mr. Commissioner, and I trust you will, that I have pending several hundred cases in Pennsylvania involving every kind and character of utility, and in which these questions come up for ruling on frequent occasions. I do not want to get into a discussion of the labor problem, because what I might say privately would be quoted to me publicly next week in Pittsburgh.

Commissioner SWEET. That is perfectly all right, then.

Mr. AINEY. If I had the power to consider this, I would hope to apply a remedy. Anything I might say on the labor problem, however, would be misunderstood, because I could not be able to divest my personal views from my official ones when the matter might confront me next week, say, in Pittsburgh, or the week after in Wilkes-Barre, or at a later period.

Commissioner SWEET. I have no criticism whatever to make of your reason for feeling the way you do. I do not know but that I should feel the same if I were in your place.

I would like to ask you one further question: With regard to the hearings of this commission, as I have outlined our purpose to you, have you any suggestions to make that might lead to better results?

Mr. AINEY. I have only the thought which I took up—of expressions to you for the railway company themselves—and which I apprehended will be followed to a certain extent, and in so far as the conduct of your proceedings is concerned, the method that has been adopted by you to gather information from the four corners of our country, I have nothing but expressions of the highest appreciation to give. I think you have adopted a very broad-minded plan. You have attempted to get every type of thought, and are seeking to correlate them in a way that certainly excites my highest admiration, sir. As I have already mentioned, I am counting on, out of the results of the information which you are thus gathering, a determination and recommendations that will be of the very greatest

importance to the carriers, the public-service commissioners, to the public, to members of the legislatures, to the executives, and to the several municipalities, all of whom touch in one way or another some phases of this problem that is engaging your attention.

Commissioner SWEET. Thank you, Mr. Ainey.

Mr. WARREN. May I ask you just a question, Mr. Ainey? Do you happen to know whether in Philadelphia, on the Philadelphia Rapid Transit lines, there is a transfer charge at many points?

Mr. AINEY. I think so. The Philadelphia Rapid Transit Co. has never been before the public-service commission on any rate complaint, and we have never made any investigation, and therefore my knowledge of conditions there is gathered largely from what I happen to see when I am in Philadelphia or a chance reading of a newspaper.

Mr. WARREN. You referred to the feeling about overcapitalization and your attention was called, I think, by the chairman, to the statement of Mr. Harlow C. Clark. In his testimony Mr. Clark stated the plan he there suggested was the result of his study of street-car questions, and he is editor of the street-car journal called *Aera*, and of his discussions of the street-railroad problems with many street-railway men, and that, so far as he was aware, it expressed the general consensus of their judgment and was not disagreed to by any street-railroad man. I should like to read that particular paragraph on valuations to you and know whether or not you would be willing to say if it would reasonably meet the situation. It is paragraph A in the permanent plan that he submitted:

The ascertainment of the amount upon which the enterprise should, in fairness and justice to both the investors and the public, be allowed to earn a return—

Mr. AINEY. May I burden you to read that again?

Mr. WARREN (reading):

The ascertainment of the amount upon which the enterprise should, in fairness and justice to both the investors and the public, be allowed to earn a return.

That was the initial step and the foundation of all his other suggestions.

Mr. AINEY. Now, your inquiry, predicated upon that, is what?

Mr. WARREN. Whether that would be the feeling that there may be overcapitalization in these companies, and that that overcapitalization ought to be taken care of in fixing rates and in determining the treatment a company should receive?

Mr. AINEY. I do not think that that answers at all the criticisms that I have made. Now, if you are asking me whether I assent to that and if that is a good statement, I do; I think that is all right; I find no fault with the statement. But I am not speaking of the reaction upon my mind of statements of that kind, but I am speaking of the reaction upon the minds of the riding public, upon whom these railways are dependent, in order to get the money necessary to their continued existence. The man who has not the technical knowledge that you have, or these gentlemen to my right have—does that give any information in definite terms, with the

utterances of Mr. Edison, recently made, that companies should have watered stock capitalized and a rate of return paid by the ratepayers, and which the ratepayers never will accept—does that give them any information with respect to that?

Mr. WARREN. That is the individual statement of Mr. Edison, I suppose?

Mr. AINEY. I understand it is; and I have tried to differentiate between the splendid work that this commission and you gentlemen representing all phases of the question are doing and the reaction of that work in the minds of the public who get these expressions of Mr. Edison and others. Now, the public are apt to give more weight to the statement of a distinguished man like Mr. Edison than I assume they would give to me. But if there was an authoritative utterance that the railways were not asking to have their rates predicated upon Mr. Edison's theory, would not that immediately dispel the false impression that may exist in the minds of the 990,000 who come before us either directly or indirectly and constitute rate complainants?

Mr. WARREN. Do you not think that this is an answer, Mr. Ainey? This is the view, so far as I know, of all street-railway men, and that is not a request—

Mr. AINEY. Well, if it is an answer, why not do what some gentlemen are seeking to do with respect to the League of Nations treaty, define the terms?

Mr. WARREN. That may be a very good suggestion.

The CHAIRMAN. The commission is very grateful to you, Commissioner Ainey.

(Witness excused.)

Mr. OGBURN. Mr. Chairman, there are five or six more witnesses who are scheduled for to-day. Some of them will speak only on very limited phases of the subject. One of them is the next witness, who will speak on a very interesting subject, however; that is, the maintenance of traffic, with certain other phases. This witness is Prof. Dugald C. Jackson, who is professor of electric engineering of the Massachusetts Institute of Technology.

STATEMENT OF MR. DUGALD C. JACKSON.

Mr. JACKSON. Gentlemen, I do not come here with the expectation of presenting to you a cure-all. When the very courteous invitation of Mr. Ogburn to appear before you came to me I thought at first that this sort of a sitting was the kind that I generally listen at rather than participate in; but in thinking it over it occurred to me it might be interesting to you if I set forth the results of certain inquiries and investigations that I made just prior to the war and which indicated the trend of the street-railway industry at that time, so that you could have before you definitely—if it has not already been set before you—the situation as it stood independent of the very unusual conditions that have been caused by the entry of the United States into the war.

As a professor of the Massachusetts Institute of Technology and the head of the department of electrical engineering, it has been necessary, of course, for me to be quite familiar and to study carefully the operations of public-utility companies, in view of the fact

that so many of them either use or produce electric service or compete with electric service. And also, as a consulting engineer, I have been quite familiar with the affairs of many public-utility concerns and also with the State relations.

As one of my duties at the Institute of Technology I have also lectured on the organization and management of public-utility companies, which has led me to study this question. In connection with that, at one time, just prior to the war, I made a very careful investigation, with the aid of certain assistants, of the status of the electric railway companies, which I finally wrote up in a report.

Now, before I go at this I want to express my own personal gratification at the appointment of a commission of this kind under the very high terms it has been appointed and in the character of its personnel. I have great hopes that there will be a creative result as the consequence of the labors of this commission.

One of the factors that you obviously understand you will have to consider is the relations of the public-utility commissions of the States in dealing with this sort of intrastate industry. It is a very important factor. I have believed and I still believe, in spite of some criticisms that are constantly arising, that the introduction of public supervision and control of the public utilities by the State commissions is one of the very important developments of American community practice.

There are certain indications that all does not go well, in spite of the magnificent fashion in which most of the commissions have dealt with their very troublesome and changing problems. One of those indications is the fact that in the State of Massachusetts, which has had most able and experienced commissioners for many years, when the street railways had finally come to a crisis, a statute was passed virtually taking the control and supervision of service and fares out of the hands of the commissioners and placing them in the hands of special public trustees for each street railway that took advantage of the law; at the same time essentially making a community guaranty of return—a limited return, to be sure, but a return—on the investment.

Now, that point illustrates one of the features that I want to emphasize. As far as I can see—and let me interject a parenthesis here, saying that the specific details of the transfer of, I think, two of the most important railways in Massachusetts to public trustees in this session under the new law have been carried out during my absence in army service in France, so that I do not know the exact trend of the discussions at the time the transfer was made—but as far as I can see, to return to the point, the public can gain nothing in either physical or money advantage by such a transfer, because in Massachusetts there has been a long-time law to the effect that the securities of the street-railway companies shall represent actual money in the plant. Bonds may be sold under par, but stock can not be sold under par, and much stock has been sold above par in former days.

Under such circumstances the systems virtually represent money sunk into the copper and iron and other equipment. There is nothing to be gained, therefore, by operating under public trustees as distinguished from operating by private managers under the commission supervision, as far as the physical service is concerned, and

the money expenditures by the public, who are the riders, provided the commission has had the adequate statutory privileges and has had the adequate staff.

The problem becomes a psychological problem; that is, it becomes a question whether the public is satisfied to have a commission which is doing many things supervise these particular matters in addition to the other matters that they have in hand, or whether the public is better satisfied to have a set of public trustees who are giving their whole attention to this specific railway.

Now, I am not going to answer whether the public will gain psychological advantages or not. I think that is a very important question for this commission to study.

I will add one more thing. Even if Massachusetts finally goes further, if they find the public gain in money and service by this change, if they then go further by then going into public ownership, there still is going to be exactly as poor a situation with respect to service and money, if it is a poor situation, as they have now. They can psychologically gain only provided the payments for the properties when they go into public ownership is an actual payment for the money that has gone into the property. Now, that is one of those cold and definite, logical facts that it is hard to get before the public and that the public will not take from any public-service corporation, but they may see some of these points from a report from such an important commission as this one which you compose.

Now, I am not going to touch upon the importance of the industry by laying statistics before you. That has been put before you plentifully, I have no doubt, by street railway men. Nor am I going to deal with such questions as methods of valuation and matters of finance, as I have no doubt they have been put before you by other engineers and by financial men. I have very definite views in regard to the desirability of valuations. I have had a great deal of experience in it. I suppose, including my army experience in making estimates of how much the physical damage in France, Belgium, the Balkan States, and Italy came to from the ravages of war, I have probably made more actual dollars of valuation than any other engineer. Although this army valuation had to be done very hastily—it was perhaps a little like the 10-day valuation that was referred to in Omaha—I will say that this army valuation was done with a great deal of fidelity; and, curious to relate, the American figures when they were done agreed very closely with some other estimates that had been made covering a much longer period.

I will not deal with wages and man power. I will speak generally of the street-railway industry. But remember that there are certain cities which are very unusual. One is New York City, and especially Manhattan, with its great subway and elevated-railway systems, and you must keep in mind that most of my remarks relate to the affairs of surface street railways in the usual cities of the United States.

Now, the problem placed in the hands of your eminent commission is not correctly couched in the phrase, "Save the electric railways," which, at the time I came back from France, I found was running through the newspapers and being talked. It seems to me the real problem is "Save and more firmly establish systematic

local transportation in our large cities." That is a very important problem for the public, as well as an important problem for the investors that have their money in the projects.

However serious may be the direct financial disturbance arising if the extensive electric tramway systems in the country declined into bankruptcy very generally, those effects would be minor compared with the effects on the prosperity of the country which will result from a failure of systematic local transportation in the city. And I agree with Judge Ainey that the matter is, in a sense, a local matter. But as an actual fact, if we get a series of local difficulties in our great cities it becomes an absolutely country-wide matter; it becomes of the utmost importance to every citizen in every part of the country; and consequently it needs to be dealt with not only as a local matter but also as a country-wide matter.

The continuation of business in American cities, whether industrial, mercantile, or otherwise, is dependent on systematic local passenger transportation being available, and the activities and comfort of the great majority of individual citizens are likewise dependent on systematic local passenger facilities. Such facilities must be preserved and enlarged in a character which will maintain them adapted to the characteristics of the cities. To lay down the ways of accomplishing this is a broad, large, and important undertaking, gentlemen, and it is that problem which is in your hands for solution, and only by dealing with it fundamentally can you make most serviceable the results of the deliberations of your commission.

Now, I may be in this sort of thing telling you those things which are commonplace to you. If they are, you may tell me so and I will not feel at all hurt and I will simply strike out my remarks.

The present situation may be described as a state of public irritation over increasing unit fares for travel accompanied by criticism of the service, and at the same time the railway companies are drifting into bankruptcy caused by the condition of war wages and cost of materials. The unfortunate status of local passenger transportation companies, however, is not wholly war-produced. Increased fares have, as a rule, only partially offset increased wage and material costs during the war period, and the trend of the companies to the bad has, therefore, been accelerated by the war, but the trend was unmistakably present before the war, and therefore it becomes a question of determining what were the causes and whose were the faults.

Most street railways have been organized and work under provisions of some agreement between representatives of a city and representatives of the stockholders. The agreements have had marked differences in different cities, but they have all had certain features more or less in common. The street-railway conditions are different from ordinary mercantile and industrial business—I am going along rather rapidly; I hope I do not talk too fast for you to follow readily; if I do, kindly tell me—the street-railway conditions are different from ordinary mercantile and industrial businesses, and in this they partake of the characteristics of other public utilities. The street railways stand in the position of undertaking the local passenger transportation in the cities under certain limitations, but the conditions

differ from agreements in ordinary businesses. An ordinary business contractor, such as one who undertakes to execute for a fixed sum some large work, like the erection of a large building, the construction of a dam, or the building of a portion of a railway, usually has a definite undertaking to perform. The capital which he himself invests is often small compared with the aggregate cost of the work, for he is not uncommonly paid monthly on estimates made by the architect or engineer, so that the "turnover" of his capital is rapid. This enables him to assure himself a fair return on his capital and a sufficient profit to represent adequate pay for his own time and ability. In fact, if conditions turn out eminently favorable, he has before him the possibility of making a large profit beyond a minimum compensation for his capital, his time, and his brains. But if conditions turn against him so that he finds himself leading toward bankruptcy, he may as a final resort—and once in a while it is resorted to—refuse to go forward with the work, forfeit his bond, and allow the work to be completed by the owner of the property. Most business activities have characteristics of this nature. There is a chance for unusual profits to the man of particular capacity and skill, a rapid turnover of the capital, little external interference with the methods used provided they are lawful, and a chance to liquidate with little waste of time and little disturbance other than the loss of money to the business man himself, if any loss has been incurred.

Such principles which relate to ordinary businesses seem to have had large influence in the negotiations between officers acting for cities and officers acting for street-railway companies when agreements relating to the occupancy of the streets, the character of the service, and the price to be paid for rides have been drawn up.

Both city representatives and company representatives have been at fault in the past in not recognizing the special and peculiar conditions which come into play in electric street-railway enterprises. A company directorate who accept an agreement to make a fixed fare within city limits which are not defined and may be largely expanded, place their company in a situation where the ultimate bankruptcy of the enterprise is likely to result, in case the area of the city grows in large measure, as has been characteristic of American cities, unless a later modification of such an agreement can be made. And a city council which insists on such a provision promotes the ultimate strangulation of service as the city grows and the company is put to a struggle to make ends meet, while it is carrying out the letter of its agreement, its written obligations—whether you call it a contract or not, it has written obligations to carry out.

I could cite many other provisions that have entered into agreements between cities and traction companies which are producing like results. In my opinion, and I want to emphasize this point in your mind, the cities and companies alike have been at fault in introducing, without foresight and expert judgment, such inflexible, drastic and impracticable provisions into relations between them; but the real difficulty has been to find a better way. With the advent of State public-utility commissions the execution of some of the provisions may have yielded here and there to judgment. But even then there has often been a failure to correlate the facts of the industry so as to bring out the essential meaning of the tendencies in the industry.

The introduction of supervision by public-utility commissions was essentially a move which, uniformly and fairly applied, would result in providing good service, at cost, when a fair return on the investment is included as part of the cost in addition to the ordinary daily out-of-pocket expenses. At the same time, it afforded opportunity for a street railway operated with particularly able, foresighted management and giving notably good service to profit through receiving a larger return on its investment than the average for the industry, as the State commission has a certain range over which they may within the satisfaction of the public allow returns.

The present slogan for service at cost adds to this the additional feature of guarantee by the taxpayers of a return on the investment, associated with operation under public authority. This addition has been adopted in certain instances, but it is facing considerable criticism, and however good it is, is going to fail also from inflexibility, if the actual return on the investment is fixed at the upper level and can not be modified as changing conditions in the value of money progressed. There must be the same flexibility from the standpoint of return on the investment as there is from the standpoint of wages and other things, in order that the projects can be maintained and extended as the city requirements require.

Commissioner GADSDEN. Won't you develop that thought just a little—the necessity for keeping the return on the investment flexible?

Mr. JACKSON. Prof. Irving Fisher, part of whose statement I heard, gave you an illustration of the difference between the market for bonds and the market for stocks under different conditions, and I think either he or perhaps one of the commissioners brought out the fact that where one has service at cost with a fixed return to the property holders, one practically puts the stockholders in the aspect of bondholders under ordinary conditions, because they have a substantial guaranty from their communities that they shall get so much and after that they do not get anything more. Now, that is very good for the time the adjustment is made, and it may be good indefinitely, but with the very wide changes of conditions which are occurring in this country and also in the world, the rates at which money may be obtained varies. We used to think that without peradventure the rate at which money could be obtained was going to fall in this country and would continue to fall. It was lower in the European countries—the great centers of money capital of Great Britain and France and Germany—and we thought we were in the direction of coming to somewhat similar rates for money which would be put into enterprise. But as an actual fact the war upset that, and consequently our judgment as to what the future would be was all wrong. Not only has the rent of money increased in this country, but it has been changed entirely in all the European countries. It has increased greatly. Whether that increase is going to remain it is very difficult to say. It depends upon some of these considerations that Prof. Fisher put before you, and which are so large that I have not very much confidence in their being settled as promptly as he seemed to hope. In other words, we are in a period and are going to remain in a period, in all probability, of uncertainty in regard to how much return a man who has a dollar and is willing to put it into a street railway will receive.

The CHAIRMAN. Would you favor changing the return on the bond?

Mr. JACKSON. No; I would not favor changing the return on the bond, because that is an agreement that was made, and when a man makes a contract he ought to be expected to stand by it under such circumstances.

The CHAIRMAN. Where would your inflexible term come in, then, as to the issuance of new stock or capital?

Mr. JACKSON. I was going to explain that, Mr. Chairman. When a return on a bond under a particular mortgage becomes less than that at which people are willing to let out their money, a company having fixed the rate by means of its mortgage, a company sells additional bonds either at a price materially lower than par, so as to raise the return and meet the market situation, or else it fails to sell bonds. If the return is larger than seemed necessary to get the money, they may do something in the way of refinancing so as to issue additional bonds, if they wish to issue bonds under a new mortgage with other provisions in respect to returns.

Now, with the fixed return of the stockholders one is in the situation where he can not sell to vary the return, as you can with a bond. Although the return on the par may be fixed by the mortgage, by selling at different prices below par you can vary the return. But if a stock must be put out at par for money and you have a fixed return, it is absolutely inflexible, and this process therefore puts the stockholder in a situation that is even less flexible than the bond contract of old as to the bondholder.

Commissioner GADSDEN. Would not that be met by the general adoption of the plan of issuing nonpar stock and sell the stock from time to time on the market?

Mr. JACKSON. If you sell nonpar stock, how are you going to guarantee the return to the stockholders—excuse me, Mr. Commissioner. You started the trend in my mind and I came right back at you with a question without thinking.

Commissioner GADSDEN. Well, the profit on the property devoted to the public use is divisible among the holders of the common stock, is it not?

Mr. JACKSON. Yes; but you will have to fix your guaranty on the basis of the money put in, and therefore each dollar gets exactly the same, whether it is represented by a certificate which is without par or whether it is a certificate of \$100 per share, and I do not think you avoid the difficulty. On the other hand, I should not like to dogmatize upon that question, because I have not reflected upon it.

Commissioner GADSDEN. It is a very interesting subject.

Mr. JACKSON. Yes; however, offhand I do not think it would solve the difficulty. There is undoubtedly some way of solving all these difficulties, and such a commission as yours may be a great aid in arriving at it.

Now, another solution would be to add to the powers of the public-utility commissions, when they have not sufficient powers, giving them sufficiently experienced engineers and accounting staffs so that they can fully audit the companies' affairs and correctly advise the public in respect to the problems of extension and operation

without actually undertaking the details of the management. That brings in this question of publicity.

The CHAIRMAN. Before you discuss that, may I ask one question with reference to the cost of service? You said the principal objection was the fixed return allowed. Is that the only objection you have to that plan?

Mr. JACKSON. That is the one major objection. Every plan has minor objections, but one, in a complex affair of this kind, picks a plan which has the counterbalance in favor of it, although, as you know, in human affairs we always find some disadvantages. None of us are Angel Gabriels, and these matters are complex enough to require an Angel Gabriel with his prescience, his foresight of the future, if they are to be solved without any disadvantages. But we pick out those plans which have at least a counterbalance or advantage, as against the disadvantages, and this is the only major disadvantage which occurs to me at the moment; and I think it is the only major disadvantage; and if that can be corrected so as to protect the public and at the same time play fair with the stockholders, I believe that the cost-of-service plan is quite a desirable one, although I also believe that for most instances it ought to be operated under supervision of State commissions rather than separate commissions, because the average city is not large enough to maintain the necessary supervisory staff.

I want to add here that I am giving you absolutely my personal views. I came here as an individual, because you sent me an invitation. I have not consulted with my friends or even talked with them about it, and I am giving you my absolute personal views as a student of this sort of thing.

Now a street railway turns over its capital so slowly, compared with other businesses, that it requires the statistics of many years to establish the tendencies of the industry; and then the company has its capital converted into steel, copper, and brick rooted to the ground and it can not revolutionize its methods immediately and it can not liquidate without large money loss of this capital and—still more important—without causing extreme inconvenience to the individuals who are bound to be its passengers and depend upon its service, as well as extreme dislocation of business in the territory which it has served. The truth of the latter statement is fortified by experience during recent strikes of street-railway employees in certain of our cities. The causes then which have brought this problem into your hands may be summed up as inherent in the way in which this special business has been dealt with by both the cities and the companies, and the war has only exaggerated the troubles and brought more quickly upon the traction companies a crisis which was creeping upon them. This complex, difficult, and special problem of local passenger transportation can not be successfully dealt with without consideration of its distinguishing conditions from ordinary commercial, mercantile, and industrial businesses.

Now, if you are willing, I will just speak of that a little more. It is a little off the line that the secretary stated I was going to speak on, but it is a matter of the character of publicity that is needed in my opinion, and I think it is worth speaking about.

There has been a natural but unfortunate misunderstanding by the public regarding the difference of this industry from the enter-

prises that most American individuals are most familiar with, and I know this from my own experience in having some little relation with some manufacturing and other things of that nature. I know very well that I would not have a real understanding of the differences if I were not also carefully studying the differences and having something to do with the public-utility operations through having been consulting engineer.

A shoe store or other specialty store, for instance, may pay a fine profit to its owner in case, after all out-of-pocket expenditures have been paid, it nets only 10 per cent of the gross sales, for the stockholders; and a department store may lead its proprietors to wealth when netting little, if any, more than 5 per cent on its gross sales. This results from the fact that the turnover of capital is rapid in these mercantile businesses, the gross sales in a year equaling or exceeding invested capital; but the individuals familiar with these businesses are not unusually familiar with the fact that 35 per cent of the annual gross revenue of a street-railway company usually is no more than 6 per cent of the invested capital of the company, and may be materially less, on account of the slow turnover of capital inherent to this industry, in which the annual gross receipts are but a small fraction of the money that has been put in the permanent way, power-generation plants, electric circuits, rolling stock, and other fixtures relating to the business. And it is incredible to the average man of the street, the average man of the public, that when they are interested in a corner grocery or corner meat shop or a bit of a pharmacy, and recognize the rate of turnover on their capital—it is incredible that 35 per cent of the gross receipts of a big public utility, which looks to them like many fortunes, should represent only as much as, say, 6 per cent, or perhaps a little different from that on the actual money that has been put in. And I am satisfied that that is one of the grounds of suspicion and of doubt in regard to public-utility managements that resides in the minds of the public.

The so-called jitney buses, even when they are established in systematic and permanent routes which are properly planned to give a reliable service, have a business which produces a more rapid turnover of the invested capital than the street railways, for reasons that I will later recur to.

There will probably be no dissent from the proposition that systematic, reliable local passenger-transportation service is essential to the life in American cities, but it may be well for me to here dwell further on that point.

The ordinary American city is a center for financial, commercial, and industrial businesses associated with residence territories. The regions utilized for different business activities and for residences are to a certain degree segregated, the commercial and mercantile businesses and some of the industrial businesses tending toward the heart of the cities, the principal industrial businesses tending toward the suburbs, and the residential regions tending toward a belt surrounding the financial and mercantile center and individual suburbs which grow up around the principal industries. Of course, that is just a broad, general view to get a certain visualization of the cities which call for transportation. The cities vary in shape, many of our most important cities being located on the sea, or upon a lake, or

upon a river, so that their development may be described as of the sector or half-moon character. A few of our cities, notably New York City, have locations in which the direction of growth is still more circumscribed. Very few of our largest and most important cities are in open territory so that they may conveniently grow through the whole circumference. We are in a somewhat different situation from the great cities of Europe, such as, for instance, London, where the Thames is small enough to make a relatively small barrier to the flow of population; or in the case of Paris, where the Seine is also small enough to make a relatively small barrier. For instance, at Paris, in the main portion of the city, the Seine is bridged every other block and thereabouts, and it is almost like a situation without the river there, as far as the flow of population is concerned. And London, while not quite so well provided for, is very well provided with bridges. Our American cities on the Mississippi, on the other hand, can not throw a bridge across at the end of every other block. They are very well content if they get one bridge per town between themselves and their suburbs on the other side.

The CHAIRMAN. At this point we will adjourn until 2 o'clock. (Whereupon, at 1 p. m., a recess was taken until 2 p. m.)

AFTERNOON SESSION.

STATEMENT OF MR. D. C. JACKSON—Continued.

The CHAIRMAN. Professor, you may resume.

Mr. JACKSON. I was speaking of the difference between the European cities and ours. It will be seen from these differences that we have a problem of our own which is determined by the physical situation of the cities. We must also recognize that we have a problem of our own on account of the personal and psychological characteristics of the American people who, perhaps as individuals and as a whole, are more anxious to know than the average of the individuals and the aggregate of the European Nations. Our people are naturally born "from Missouri," to a degree that is more notable than in the European Nations.

We can gain suggestions from the manner of handling the problems of local passenger transportation in the European cities but we can not rely upon them for the complete solution of our own problem. We must rely upon our own initiative and originality to afford our solution.

The travel habit is large in our cities, partially on account of the physical character of the cities and partially on account of the mental characteristics of the people. By travel habit I mean number of rides per annum on the average per 100,000 inhabitants. This travel habit being large it requires that particular attention be given to the permanency and reliability of the means of transportation. We can not rely upon, and, therefore, are not satisfied with, service which meets our needs in good weather and fails to meet our needs in bad weather. For instance, we are not satisfied with service which is ample for all needs on fine days when many walk but which fails on wet days because extra service is not afforded to those who walk

in good weather. And particularly, we can not rest with the erratic kind of service which is sufficient in the comfortable days of the spring, summer, and autumn, but which disappears from the streets in part or in whole in the extremely rugged days of winter. The American people must have systematic, definite, and reliable, local passenger transportation for their cities. It can not be obtained by sporadic jitney service. It can only be obtained by the definite service which can be held accountable for providing the requirements equally in foul weather as in fair. There is also a great need in the American cities of a service which will carry passengers distances of many miles, perhaps 10 to 15 miles, but which partakes of the characteristics of the local passenger service, and which at the same time affords a satisfactory local passenger service for people who travel but short distances, often not more than a mile, and in large proportion, for instance, not exceeding two miles. This service again is one which can not satisfy the needs if provided in a sporadic fashion. The effort of the American street railways has been to provide the short haul local passenger service and the long-haul local passenger service by the same means and for the same fare within a city area.

Recognizing that, we must have all of the local passenger transportation which the street railways have desired to give, and in fact, have been giving, the question is whether the present needs can be met even in normal times for one fixed fare, in the old-time fashion of the American street railways.

Our present street-railway service is an outgrowth of horse-car service which, naturally, dealt alone with the short haul, and the electric-railway fares were chosen and fixed by habit on the basis of the horse-car service.

I am speaking of this out of personal experience, because I was engaged in consideration of electric railways in the days when we were replacing horse cars by electric cars. Consequently it is a matter of personal experience as well as study when I make these statements. We took a different motive power and simply grafted it onto an existing system, without modification of many things which existed. In the horse-car service the investment per passenger-mile haul was less than in the modern electric service.

For instance, speaking of having made a study of electric-railway conditions and having written a report, in that report, which was published as a book, finally, one page shows a chart of the aggregate of street-railway conditions in Massachusetts, beginning with the year 1890 and going down to 1915, 25 years.

The year 1890 was just about the opening of activities in electrification, and a small proportion of the then horse railroads of Massachusetts, or track-mileage of horse railroads of Massachusetts, had been electrified, and electrification was growing rapidly.

From 1890 onward the ratio of investment to passengers carried per annum, you might say the investment per passenger which can be carried in a year, had a substantial and steady increase—not large, but it has been an increase. In other words, more investment has to be put down for carrying passengers now than formerly for an equal number of passengers carried per year. At the same time, for the first half of the past year, the number of passengers carried per mile of track tended toward a decrease, and then began

to increase again, but it has not come up yet to the density of traffic which existed at the time the horse railways were in operation.

The service itself has been entirely changed by the introduction of the electric car, which made practicable longer hauls and resulted in the consolidation of street railways so that a single fare was paid for hauls which previously cost the passenger two or three fares spent on connecting horse railways, when he reluctantly spent the time necessary to make the passage. The speed of transportation has been raised by means of the electric car. The old horse-car service averaged a speed of perhaps 6 miles per hour, and our city transportation service is now carried on at an average speed of 50 per cent higher, which has again increased the investment per passenger-mile haul as well as increasing certain factors of the operating expenses.

Since it is necessary to maintain both the short-haul and the long-haul traffic, it may be inquired whether the electric car is adapted to this double service. As a consequence of the characteristics of this service the street railways have gradually made themselves strong competitors of the suburban railways for hauls up to 15 miles in many of our cities; and the cars have become so crowded with their passengers that the short-haul service is no longer satisfactory. Should the short-haul traffic be provided for by means of buses running on the streets? Or should provisions be made for taking care of both the short-haul and the long-haul traffic on the systematic, definite lines of transportation furnished by car tracks in the streets? The following considerations bear strongly upon this and answer that most of the traffic should be taken care of by the definite system of transportation running on rails, and that the so-called jitney-bus service may be made an important auxiliary thereto, but it ought to be definitely associated.

The CHAIRMAN. You say most of the traffic should be taken care of on rails?

Mr. JACKSON. Yes.

The CHAIRMAN. What do you think it will be in the future?

Mr. JACKSON. I think it will, if the street-railway service is looked upon in the proper light. In other words, as a matter of community economy, we are actually better off with the street-railway service on rails.

Now, we may not look at the thing from the standpoint of community economy, but we may look at it from other aspects, particularly the psychological aspects, and in that case it is quite impossible to foretell what the development may be.

What I said this morning about the Massachusetts system is no criticism of the action which has been taken there. It may be right or it may be wrong. When you analyze it, however, in cold logic, the advantage, if there is an advantage, is psychological strictly.

In the same way, if the street railways lose their short-haul traffic, it is not to the community advantage in money or in quickness of handling, and that sort of thing, reliability of service, but it will be determined, due to the fact that the street railways have not been able to plan their methods in such a way as to hold their short-haul traffic while caring for the long-haul traffic, or else the psychological influences of the public will turn in the direction of independent buses—individual buses.

I believe the psychology of the public is such that it flows along the most economical and desirable lines, provided it is given fair opportunity; and that is why, if the street-railway people see to it that they should give the proper service for the short haul at a reasonable price, if it can be worked out in any way, they will get the traffic.

Commissioner SWEET. But the public, I suppose you think, can feel prejudice and resentment and do foolish things, the same as individuals can?

Mr. JACKSON. Oh, yes. Every individual of the public is a part of the public, and we are all very much alike. All our daily life is more or less influenced by our individual prejudices and our knowledge of our own affairs as it leads us to look upon other people's affairs. When you take that whole thing as collective public opinion, some of the characteristics become accentuated; but it is just human; it is the most natural thing in the world, and one has to look forward to seeing it.

Mr. WARREN. May I interrupt you with a figure that bears that out? The official figures published by the trustees of the Boston Elevated showing the investment per dollar of income from the start of the road down to the present time, I think very strongly confirms what you have said, speaking generally.

In 1897 the investment per dollar of income was \$2.90. In 1918 it was \$6.37 on that one system.

In 1919, for nine months, it dropped to \$5.38, as a result of the higher fares introduced by the trustees.

Mr. JACKSON. I have not seen those figures, but I have no doubt they are correct.

Mr. WARREN. I would like to file that. It might be of interest to the commission.

The CHAIRMAN. All right.

Mr. WARREN. It is the trustees' compilation, and not the company's.

Mr. JACKSON. Here is a thing that affects this question of the drift to the buses. You must remember that practically half, or somewhere in the neighborhood of half, of the total fixed investment of the street railways is in the permanent way and paving. It is fixed. It is that part that is corresponding to the street service. That proportion has slowly increased during the past years. The increase in proportion has not been very marked, but it has slowly increased.

The jitney buses, whether they are of the sporadic kind or regular system line buses, which run at will on the street surfaces, are freed from this investment. That puts them in a position where, perhaps, unless the difference in circumstances is understood by the public, the drift toward the buses will continue, and will actually take care of a good part of the present surface hauling of the street railways.

If the public fully understands the situation, I think the buses will not be looked upon as being so favorable as they are now looked upon as being.

I am putting these things just in the way of common, everyday logic. I am not considering my personal view or anybody else's view, whether it is that of the company or that of the riding public. It is a question of just simply what are the logical facts.

Now, the jitney buses do not have this investment. True, their owners contribute by taxes and license fees toward the cost of pavements; but so do the street railways, in addition to financing the investment of their own permanent way which is used jointly by other street traffic. Moreover, the street railways make heavy investments in power plants of the most economical character, which is a conservation policy as well as a policy for economy, and the jitney does not. These considerations make the jitney business more like other commercial enterprises in respect of the rapidity of turnover of capital, and also enable it to compete with street-car service operated with flat fares.

Now, the question really is: Will jitney-bus lines with systematic routes and reliable schedules make desirable substitutes or successors to the street railways, or at least as to a part of their business, as has been asserted more or less unthinkingly, but sometimes with real, definite decisions? That, virtually, is the question that the chairman put a moment ago.

What would be the effect on the street traffic congestion in cities, such as Chicago or Baltimore or Philadelphia or Boston and a large number of others if the surface-street-railway service was replaced by bus service of equal reliability? Many of the American cities—I do not know how many but quite a large number—each have more than 1,000 cars operating on street railways during their rush hours.

To replace such a service with buses would require several times as many vehicles, thereby adding to the welter of street traffic in the heart of each city. These vehicles would cause more than a proportionate addition to the traffic confusion, because they would travel at will over the street instead of being confined to certain definite channels like the street-cars. Moreover, additional streets would have to be paved with smooth pavement at great expense to support this bus traffic. Buses run very well on smooth paved streets, like Fifth Avenue, New York, and certain streets of Baltimore or Newark, but few American cities pave sufficient streets with smooth pavements of the quality enabling them to stand heavy traffic, and the cities would find it necessary to make enormous additions to their investments in pavements before jitney buses would meet the general needs of local transportation. In addition to this, a large increase of annual cost for paving maintenance would follow. Given equally systematic and reliable service by street-cars and by jitney buses, community economy stands with the street-car for service in main channels.

I am satisfied that that opinion is correct community economy—that is, dollars and cents—when you have equal physical results in the way of service; but it may not be that which satisfies the public best, and if it is not that which satisfies the public best, the jitney busses must come and the rail service practically relinquish its short haul.

I believe that if the public had the full conditions clearly before them, they would be for community economy, because personally I believe just as much mental satisfaction can be had from dealing with street-car service as with a bus-line service. I think if they are bad, they are both likely to be bad. If one is likely to be bad,

the other is likely to be bad, and if one can be good the other can be made good. That is the reason I do not believe that the psychology of the thing is ripe for the general introduction of buses to the exclusion of rail service, if everybody knew the economic relations.

The jitney may be made serviceable for certain special conditions. It should also be observed that the use of subways to divert some of the surface traffic from the surface in certain parts of the city, as is done in Boston and Philadelphia, and as is talked of in Chicago, Cleveland, and elsewhere, would be less readily accomplished and less safe for railless traffic than for rail transportation.

All of these considerations point to the fact that it is necessary under our present conditions of city life to maintain the rail traffic at a high degree of completeness. And when comparisons are made between the passenger mile cost by street-car and by jitney, it is necessary to give full consideration to the fact that substantially 50 per cent of the investment of the street-car service is fixed in the permanent way on which the cars may roll, and that the money for this is furnished by stockholders of the companies, while the general public, through its tax rates, pays for the street surface on which the jitney buses roll; because there is a little shifting of the cost and the return on that investment, because for the jitney bus the rolling surface is furnished by all the taxpayers, while, as we now have it, for the street-cars, the return on that investment is paid for by the riders, the permanent way and the paving that the street-railway people have to take care of.

I may be going over this thing in too great detail for you gentlemen, and if so, I hope you will tell me.

The CHAIRMAN. I think your discussion of the competition between the jitney and the rail has been exceedingly valuable.

Commissioner GADSDEN. Along that line, have you had time—I do not suppose you have since you came back—to make an investigation as to the congestion of the streets where there is a street railroad strike on, caused by vehicular travel? The results are very interesting.

Mr. JACKSON. I have not made any investigation, Mr. Commissioner. I had the opportunity to personally observe it for a few days in Boston and in suburbs.

The CHAIRMAN. In the recent unpleasantness?

Mr. JACKSON. In the recent brief strike which existed on the elevated railway; and I am satisfied that, if the necessary traffic had really been taken care of by jitney service, the streets would have become utterly impassable. Only part of the necessary traffic was taken care of, and the streets were very, very bad. Whether or not the frightful welter of traffic might be straightened out, untangled by diversions, and so forth, with police control, I am unable to say, because I have not really investigated that point. I do know, however, from that observation, as well as from general observations at various times and through years, that the additions to welter of traffic through trying to care for it with buses and jitneys would be something amazing.

Of course, a good deal of the tremendous density of traffic in certain parts of London is due to the fact that buses and taxicabs vir-

tually take the place of street-cars in those parts of that city, and I think the streets would be much more passable in certain parts of London if they really had rail service on those streets. To what degree that would improve matters there, I would not undertake to say without more investigation; but I am satisfied that there would be an improvement. We must also take fully into account, in any analysis of this important problem, that the cost of laying additional paving is paid for by the general public either directly by taxes or indirectly through increased rents, increased prices of goods which they purchase in the stores where the rents are increased on account of increased taxes, and, in general, as a part of the cost of living of the individuals.

I made the remark that the rolling surface for the buses was paid for through the general tax rate. We must not let our minds be diverted into the idea that that comes out of the pocket of property holders, because the man that owns a store and pays extra taxes because more paving has to be paid for, or greater paving maintenance, sooner or later gets it apportioned into his rents, and sooner or later the fellow that has rented the store and is selling goods therein gets it apportioned into the prices of his goods, and the general public pays for it in the end. It means all—everybody contributes, instead of the street-car rider. That is all. But the street-car riders, after all, are now pretty nearly all the general public except the relatively few who can afford to ride in automobiles; so that it comes to practically the same thing in the end, as a matter of community economy.

This is an indirect payment for transportation in the streets—this payment through taxes for paving—but it falls most heavily upon the man of small means, who is least able to bear it, because it comes as a factor in all of his purchases.

If we allow the street railway to decline and the jitney to partially take its place, it is possible that the direct transportation cost of the individuals in the community will decrease compared with the cost under present conditions, but the total cost, considering the sum of the direct and indirect costs, will actually be increased, and the final result of allowing our local transportation by street railways to decline will lead us into a less satisfactory ultimate condition, although the immediate effect may appear to be improved.

I present that as a conclusion there, and you may or may not agree to it. A lot of people would say that it was purely academic, that there is nothing to it. I am satisfied it is right. The average of the public may not feel that it is a way to follow. It may be thrown overboard; in other words, a sacrifice of community economy may be made for the sake of other things. That is a matter for the public to decide—not for me.

It is also a matter of great interest to a commission such as yours, because you are here trying to educate the public, if my idea that I suggested at the beginning of your great responsibilities is correct; that is, it relates to the saving and betterment, enlarging of the local passenger traffic for the cities, pointing a way for doing that.

In my opinion, no amount of repressive regulation will be adequate to do away with the competition which jitney buses produce. You can make repressive legislation all you choose, and then it will not do away with them, if the public believes they are right. The

street-railway man who says, "If they would only regulate these jitneys off the streets we would be all right"—that street-railway man should look into his mental processes and see what is the matter with his management that allows the jitney to come up; because you can not get rid of them by repressive legislation if the public believes they are necessary.

Commissioner GADSDEN. Would you include in that regulations as to time of service and hours of work and things of that kind?

Mr. JACKSON. Oh, no.

Commissioner GADSDEN. You do not mean that, do you?

Mr. JACKSON. I believe that the present sporadic jitney is a scheme that will soon lose popular favor; and, in fact, at one time in certain cities it was very rife—anybody would buy a Ford and run it for a while, and it was in great favor; but in most of those cities where it was in the greatest favor for a time it is in much less favor now.

Commissioner GADSDEN. You do not mean the wildcatting business?

Mr. JACKSON. That kind of service is not wildcatting business; but where you have regular, definite lines and have systematic transportation that sort of regulation is right. But that is not repressive regulation.

Commissioner GADSDEN. I understood you, but I wanted to make the record clear.

Mr. JACKSON. That is not repressive.

The CHAIRMAN. The kind of legislation which you have in mind is that in the interest of the public, rather than that in the interest of the street-railway system?

Mr. JACKSON. Yes; and I say that regulation of the jitneys which is in the interest of the public aids the public, because it makes systematic transportation out of it.

Legislation or regulation which is in favor of the street-railway company, which is repressive on the jitneys, will never put the jitneys out of business, because the public will have them if the public thinks they want them.

The one way to put the jitneys out of business, I am satisfied, is for the street-railway people to make their service satisfactory and their prices so reasonable that the public are satisfied to ride. Whether that can be done with the short haul or not is a very great problem, I will admit. I am hoping great constructive suggestions will come out of your honorable and eminent commission.

I have written this down in a little different fashion, which I will read:

If the street-railway service can not be made complete and adequate to the needs, some other service, such as jitney service, will come in as a competitor. In fact, it ought to come in and be encouraged unless means can be provided to make the street-railway service adequate to the needs; and the necessities of the present are to find the best ways of making the street railway-service adequate, in view of the fact that it is ultimately the cheaper service.

After having studied carefully the conditions of local transportation in American cities under the normal conditions of cost prior to the war, I became convinced that a considerable part of the difficulties of the present street-railway-transportation systems is due to their effort to satisfy the needs of long haul at the expense of the

needs of the short haul. These conclusions are set forth in a statistical report on the subject published in 1917 in a book entitled "Street Railway Fares, Their Relation to Length of Haul and Cost of Service," by Jackson & McGrath. In the first chapter of this book are set forth a summary and general conclusions. I wish to call your attention to seven paragraphs of specific facts regarding street railways which this investigation, in my opinion, establishes.

1. Density of traffic is the most fundamental factor in establishing the cost of service per passenger. The higher the density of traffic, the lower the investment charges and operating expenses per passenger. In this connection density of traffic is a term used to mean passengers carried per car-mile run, and passengers carried per mile of track per annum.

2. Long hauls tend to decrease density of traffic, thus decreasing the earnings per car-mile, and increasing the cost per passenger.

3. The average length of passenger haul increases with the length of line.

4. The density of traffic becomes large in medium-sized cities, but as the cities spread out and become very large, the density of traffic tends to decrease again because of long hauls into thinly settled suburbs.

5. Increased unit fares have a tendency to decrease traffic, while decreased unit fares tend to increase traffic.

6. For a number of individual roads studied, as well as for the aggregate of all street railways in Massachusetts combined statistically as a single system, it has been found that the average actual investment per revenue passenger carried per annum has been increasing, and the average rate of return has been decreasing. This has been associated in the last few years (considering conditions prior to the European war only) with an upward tendency of operating cost per revenue passenger.

7. Fares in British cities are somewhat lower than on American street railways, and are almost invariably based upon the distance the passenger rides. In general, they approximate about 1 cent (United States money) per mile and the average ride is usually only about 2 miles. Lower rates abroad may be ascribed partially to a greater density of traffic which results from a much greater density of population per mile of track, while wage scales are much lower in British cities than in this country, and free transfers between lines are seldom issued.

In addition to those 7 specific facts, 10 paragraphs of conclusions are set forth, and these conclusions I will here repeat. It is to be noted that the stated conclusions relate to the conditions prior to the European war. At the present time the purchasing power of the dollar has fallen to between perhaps 50 and 60 per cent as compared with five years ago, and therefore specific statements of expenses and rates of fare do not now hold; but the relations still hold, and the conclusions appear to me to have been strengthened by the experiences of the war years. The conclusions are as follows:

1. The street railway is a private enterprise, granted monopoly privileges by the public, and in return it owes the public good service at reasonable rates, such rates to be adjusted so as to be fair to all users of the service, and sufficient to allow the owners of the railway

a fair and just return upon their investment. These owners are just as much a part of the public as the car riders, and are entitled to just treatment and equal protection by the laws, and no more.

2. Many companies are not earning a fair return at the present time, others are obviously making ample earnings. A great many in between these extremes may be classed as doubtful—that is, each would require a special investigation to determine its actual condition.

3. Practically all street railways have continued to operate upon a 5-cent-fare basis, despite increased costs of investment and operation, and despite increases in the length of ride offered for the 5-cent fare. Public opinion and authority have been largely instrumental in causing the continuance of this system.

4. The 5-cent fare has been not only a convenient unit, but it has probably aided to some extent in the healthy expansion of city areas. Nevertheless, it puts a high rate per mile upon the short riders for the benefit of the long riders. If costs of operating street-railway service continue to increase, increased fares will become inevitable, and if 6, 8, and even 10-cent flat rates are resorted to, the inequality between long and short riders will become intolerable.

5. Some attempts have been made already to meet increased costs by increasing unit fares to 6 cents or more. It is clearly shown by data submitted with this report that increased unit fares almost invariably result in a reduction in total passenger traffic. Short riding is discouraged, if not entirely eliminated, by higher unit fares. So far, no city system of importance has yet experimented with 6-cent fares.

6. It seems impossible as a practical matter to accurately correlate the cost of service with varying lengths of ride, and as a matter of fact, the length of each individual ride and the exact cost thereof are relatively unimportant. The main controlling factor in the average cost of service per passenger is density of traffic. This factor, in turn, is more or less directly influenced by the length of haul and other factors.

7. While it seems impracticable to allot the exact share of the complex cost of the street-railway service to varying lengths of ride, it would be both impracticable and inexpedient to base rates wholly upon the exact cost of each service, even if it were known; but some approximation to costs should be attempted in the rates.

8. Goods or products are almost always sold at a total price depending upon the quantity involved, subject, of course, to certain modifications and classifications. Transportation on the street railways is a product and should be subject to the same economic law. Passenger rates on the steam railroads are based on mileage rates of 2 to 3 cents, with certain reasonable reductions for multiple trip or monthly tickets and for very long trips.

9. To meet increasing cost of service and to properly prepare for extensions of existing systems, the street railways in the United States, both urban and suburban, will sooner or later be forced to adopt a system of rates based more nearly on the length of the haul. A mileage system of rates is probably not desirable in American cities. It may be desirable in certain cities to retain the nickel fare by putting a reasonable and proper limit on the length of

the ride permitted for that rate but, in general, something shorter and more uniform than our present irregular and unsystematic 5-cent zones must be adopted, possibly with lower unit rates than 5 cents. A minimum or initial fare of 5 cents may perhaps be retained in certain cases, but there is some evidence to support the opinion that reasonably limited areas may be served at less than 5 cents.

10. Every individual street railway presents a special problem in itself and must be studied separately before detailed recommendations as to proper rates of fare can be made. After the purely financial and economic sides of the question have been investigated, a full and thorough consideration must be given to the possible effect on sociological conditions of any change in rates or systems of fares and quality of service, and also to the psychological aspects—that is, the possible effect, on the minds and feelings of the public at large, since the public must be depended upon for the financial success or failure of any public-utility enterprise.

The foregoing conclusions all point to the necessity of some zone plan of fares for our large cities. Where it is pointed out in the conclusions that a mileage system of rates is probably not desirable in American cities, it is the intention to urge the fact that transportation, like other branches of business, has a certain proportion of overhead cost which is reasonably independent of the bulk of the business, and that therefore the short-haul passengers may be expected to pay a larger per passenger-mile apportionment than the long-haul passengers, and that the zone system should be laid out recognizing that fact. Zones which might have been based on a 3-cent fare under prewar cost would to-day call for a 5-cent or larger fare.

Most of the street railways of the United States have wished to avert the introduction of zone fares, partially on account of the difficulty of adequate auditing of the fares collected. In the European cities where zone fares have been used for several decades, the plan has been usually founded upon a straight mileage charge without consideration of the stand-by charges, and measures for adequate auditing have not been introduced. This is undesirable in American practice since we have a much heavier passenger flow which calls for larger loads on our cars and makes the collections, according to European methods, impracticable. Moreover, the American public is more inclined to criticize loose methods of fare collection than the foreign public, and the American public have become more accustomed to methods of checking money collections in all lines of business, as is illustrated by the very general use of cash registers in the mercantile lines, than is the characteristic of the Europeans.

Some of our American street-railway people suggest that the introduction of accurate methods of accounting for fares is a reflection upon the honesty of the platform men on the cars but, in my opinion, this is an inaccurate inference in respect to the attitude of the true man. No true man can fairly object to the use of a cash register in a corner grocery, or in a department store, which puts him upon his mettle to do his work accurately, and is to his advantage rather than his disadvantage, if he is honest. Similar accurate methods can be introduced in association with zone fare collections on street-railway

cars. The passengers rely upon paying only for that which they get, and likewise rely upon the company receiving a full accounting from the collectors.

Reverting to the mileage system of foreign cities—such as Glasgow, Manchester, London, and so forth—where you pay an equal amount per stage for any number of stages, at least up to a considerable number—for instance, if you ride two stages, you pay twice as much as you do if you ride one, and if you ride three stages, you pay three times as much as if you ride one, and so on, up to the time when you are going a great ways. That system I doubt as being an effective one in the United States, because it is reasonable and proper to recognize that there is an extra cost due to what some people call readiness to serve and some call terminal costs; in other words, the costs of stopping and starting the cars, for power, wear and tear, and the delay which is thereby caused, due to increasing the number of cars that are necessary to give a certain amount of service, and the number of hands that must be employed on the platforms, which makes an additional cost, so that the stopping and starting is a cost of its own, in addition to the mere rolling of the cars by furnishing power, and the return on the investment involved in the tracks, power-houses, cars, and so forth.

A modification, however, which includes this characteristic, which brings about zone handling, somewhat after the style of Milwaukee, I am satisfied we will have to put into effect in some of the large cities, or else the jitneys will take a great deal of the hauling for the shorter hauls.

Cleveland has not needed that sort of thing, because Cleveland is a relatively small city in area. The passenger lines, as I remember it, only run about 3 or 3½ miles in all directions except one, and it has been generally accepted by the street-railway commissioners, I think, in Cleveland, that in that direction it is a pretty long haul for the fare that they have been obtaining.

A proper zone just at the present time, which was on a 5-cent basis, might be expected to ultimately bring about a lesser fare if we have a readjustment of prices downward, as has always ultimately followed the great wars of the past, but which Prof. Fisher said the other day probably would not follow this time. I supposed it would follow, but I believed that there had been such terrible destruction of property and human power that it would take several years before we began to feel the influence of the downward trend of prices.

The introduction of the zone system upon the street railways does not mean an increases of fares above fair and proper figures. It means, indeed, an ultimate decrease of the unit fare for the short-haul passengers as compared with the prices which they have paid in the past. With the normal conditions of commodity costs gradually returning, as we may expect them to return ultimately, the unit fare may go below the nickel, so that a proportion of the passengers carried should pay less than the traditionally established nickel fare, while those passengers who travel distances will, and ought, to pay more than the nickel fare.

Voice has been given to much well meant but incorrect criticism of zone fares for American cities. This has generally been based

upon an allegation that zone fares would increase the concentration of population in the cities. My study has satisfied me that these premises are erroneous and the criticism incorrect. The family that has gone to the suburbs for the purpose of obtaining better living conditions, as a rule, is able to pay a slight increase of fare without overthrowing its margin of advantages. If such fares are not increased above 5 cents, provided the distance to the suburb is greater than a passenger can be carried for 5 cents, then the loss from carrying such passengers for 5 cents must be borne by others. If this loss is assumed by the State or by the city and the suburban village, the suburban dwellers will ultimately pay more than the extra fare, on account of the increase of taxes, or from the apportioning of taxes in rent, and in the cost of the various articles of food and clothing purchased.

In other words, when one pays for something indirectly, it ultimately costs him more than if he had paid for it directly. While he may not know that he is paying for what he got at less than cost, he actually is, and he is paying more for it.

We can not escape the proposition that the general public pays for all such costs which are assumed by government, and that the cheapest way of meeting the costs is by direct payment, rather than the indirect payment through taxation. Moreover, there is a large proportion of unskilled working people living in cities on whom the payment of even 5-cent fares falls heavily, and these with their families are now constrained to live in definite portions of our cities often denominated "slums," which are near the locations of centers of employment, because the individuals are unable to pay transportation charges and must live near their work. The zone plan, properly introduced at the present time, may not aid this portion of the population now, but with the gradual decrease of the cost of commodities and the consequent reduction of the price of transportation there will be an ultimate reduction of the unit price per zone, which will enable such passengers to get a certain amount of transportation at less than 5 cents per passenger. The ultimate result of the zone system introduced properly into American cities will improve the present situation by tending to spread the area within which it is practicable for unskilled working people to live.

That is quite contrary to the thesis that is presented by most people belonging to the class generally called uplifters, but I think that it is consistent, and I submit it to you as being well worthy of your scrutiny at least, as a matter of importance to the future of American cities.

The circumstances under which the local passenger transportation agencies are now operating, and the crisis which they are facing, are the results of the very rapid growth of the American cities, with the consequent expansion of their areas.

I have made my remarks somewhat forcible, and you may think I am criticizing the street railways and criticizing the public, but I am not intending to do either. I am trying to present these things to you as logical deductions that have come to my mind, and bear no criticism of either.

The fact is that the street-railway systems have endeavored to meet the transportation requirements. Mistakes have been made,

but the transportation needs have been provided for, in a manner which is encouraging, and for which those directly connected with the industry should be complimented. The industry started with the horse railway, for which the flat 5-cent fare was reasonable. The electric railways have expanded into a situation where the present flat-fare arrangement is unreasonable, and it is necessary to face these facts in order to solve the problem which is before your eminent commission, in addition to considering the special conditions that the war has introduced upon us.

I thank you, gentlemen.

The CHAIRMAN. We are very much obliged to you for your valuable statement.

(Witness excused.)

STATEMENT OF MR. FREDERICK J. MacLEOD.

Mr. MacLEOD. Mr. Chairman and gentlemen, I should judge from the extent to which Massachusetts is participating in the proceedings to-day that your commission is interested in knowing what has been going on in Massachusetts in the street-railway field during the last four or five years. I have prepared a statement which attempts to give in rather condensed form a comprehensive survey of the situation in Massachusetts in its most important public aspect, that I should like to have the opportunity of reading, and either during the progress of this prepared statement or at its conclusion I should be glad either to answer, so far as I may be able, any questions of any of the commissioners or to develop in greater detail any particular matter on which you would like to have additional light thrown.

The crisis in the street-railway situation in Massachusetts is due, in the main, to the same general causes and conditions which have been described in the testimony already given before your commission. The problem with which we have been confronted in Massachusetts has, however, been in certain respects more than ordinarily difficult and complex, owing to certain special conditions resulting from the history of street-railway development in our State.

1. Street railways have been in operation in Massachusetts since 1860, a longer period, I believe, than in any other State. Massachusetts has been the pioneer State in the development of the horse railway, the electric railway, and the underground subway. The losses due to experimentation in successive stages of street-railway development and to replacements and renewals made necessary at frequent intervals by successive advances in the art have been heavier in Massachusetts than in most of the other States.

In Massachusetts the financial stability of the street-railway industry has been impaired by overproduction. Massachusetts has more street-railway mileage in proportion to its population and area than any other State in the Union, and this mileage is not only large in amount, but in many cases badly located. This condition is the result of the era of speculation in street-railway building which set in with the advent of electrification. Competitive lines were built where there were traffic possibilities for a single line only, and the

lines were extended anywhere and everywhere into the sparsely settled rural districts where there was no reasonable financial excuse for building at all. It might have been better, in the long run, if this boom period had been allowed to run its natural course, if unnecessary lines had then been abandoned and if a number of small companies which had sprung up during this period of mushroom growth had reorganized by scaling down their securities to correspond with the traffic possibilities of the territories they served. Instead, these speculative companies were saved from prospective bankruptcy or the scrap-heap by the policy of consolidation, under which they were taken over, with all their questionable debts and obligations, on a share-for-share basis by the more prosperous urban companies. From this union of prosperous and potentially bankrupt companies there emerged a number of street-railway systems with just sufficient vitality to keep their heads above water during fair weather, but incapable of meeting the stress of hard times and war conditions.

Our Massachusetts companies undertook the disastrous experiment of trying to extend to the country districts the ordinary type of street-railway service which had been developed to meet city conditions. In most other sections of the country the city companies perform, in the main, a purely urban service, while the interurban service is furnished by separate interurban companies which operate for the most part with infrequent stops at a high rate of speed under private rights of way and do a large freight as well as a passenger business. While electricity, rather than steam, is used as a motive power, they furnish to all intents and purposes a railroad rather than a street-railway service; they are administered under the railroad rather than the street-railway law, their passenger rates are fixed on a mileage basis, and the amount charged is substantially the same as in the case of the railroad companies. Under that system the attempt at least has been made to develop the interurban lines on a self-supporting basis, though many of them have failed to pay and have, at one time or another, been forced into receiverships. In Massachusetts, however, the interurban lines have been merely appendages to the city system, with similar fares and methods of operation. Our present hybrid and diversified street railways were built up on the theory that the city lines would prove sufficiently profitable with a 5-cent unit of fare to absorb the losses on the suburban and interurban lines. For a time a downward trend of prices, as the result of improved methods of industrial production and the comparatively low cost of upkeep while the properties were new offered some encouragement that the experiment might prove successful. As soon, however, as prices began to rise, and the need of extensive renewals arose, it was found that the money which was needed for the proper upkeep of the more prosperous city lines had to be expended in the reconstruction of the cheaply built promoters' lines which were taken over, and in meeting the deficits from their operation. Companies originally prosperous then found themselves unequal to supporting the burdens imposed by the consolidation of unprofitable lines. The lifeblood that was generated at the heart of urban systems became impoverished by circulating to the ends of the long antennae which ex-

tended in all directions into country districts, and the decline immediately began.

While in the early days a substantial amount of water was injected into street-railway securities, most of the electric-railway lines in Massachusetts have been built under rigid State supervision of security issues. Generally speaking, the stocks and bonds of Massachusetts street railway companies represent an equivalent amount of money paid in in cash and expended for legitimate corporate purposes. In all cases, moreover, the bonded indebtedness has been protected by the issue of an equivalent amount of stock paid for in cash at par or better.

This policy, in conjunction with the policy of consolidation already referred to, has resulted in giving an extended lease of life to properties which would otherwise long ago have been faced with bankruptcy and forced to abandon operation, and in saving Massachusetts until recently from the frequent failures of street-railway companies which have marked the financial history of other States. This policy, however, in its immediate effect has been in many ways beneficial from the public standpoint, as it has made possible longer rides and additional transfer privileges for former units of fare, has prevented the unwholesome congestion in the cities, has made possible more healthful living conditions for a large part of our population, and has largely increased property values and otherwise contributed to the prosperity of our suburban communities.

The prevailing fares, however, were insufficient for many years prior to the war to enable the companies to maintain themselves in sound financial condition. Depreciation requirements were almost wholly neglected and many companies were not even making adequate provision for current repairs and maintenance. The companies, in other words, were not meeting current expenses out of current revenues, but were, in effect, paying dividends by drawing upon invested capital. During all this period the companies, influenced by the necessity of preserving their financial credit in order to obtain new capital, affected an air of prosperity and shrank from disclosing their real financial situation, even to obtain an increase of rates, and were thus left in an impoverished condition with no reserve of financial strength to stand the shock of war-time prices and conditions.

The CHAIRMAN. Does that statement apply to the large systems in Boston and the surrounding suburbs?

Mr. MACLEOD. That applies to them all.

Owing to the conditions which I have described, the street-railway problem in Massachusetts during the past four or five years has, I believe, assumed a more acute form than in any other part of the country. As the companies had no reserve funds to draw upon, the heavy increases in the cost of operation at a time when large expenditures were necessary for overdue renewals and replacements, necessitated a corresponding increase in revenue if the companies were to be saved from bankruptcy and if the public were to retain adequate street-railway facilities. Since 1914 successive applications for fare increases to meet the constant rise in prices have been made by almost every company in the State, and have from time to time been granted, in whole or in part, by the commission.

In considering proposed increases of rates, the commission has tried to do justice both to the companies and to the public, and in every instance has fully recited the facts and its findings, in order that there might be no doubt as to the basis for its decision. The decisions of the commission have been based upon the principle that in the long run the rate-paying public, as well as the investing public, will be best served by recognizing that our public-utility companies are entitled to charge such rates as will, under honest, efficient, and economical management, produce revenue sufficient to meet operating costs, including proper provision for depreciation and other reserve funds in order to prevent an impairment of assets, and to pay taxes, interest charges, and a moderate return on invested capital based, not upon the cost of reproduction with or without depreciation, but upon the capital honestly and prudently invested in the property. On the other hand, the commission has emphasized the fact that in any proper method of dealing with street-railway rates, the public can not be expected to pay dividends upon watered stock, or interest upon indebtedness improperly incurred, or to make good any losses due to mismanagement. Any inflation of this character must be wiped out by the stockholders or carried at their own expense.

Under proper public regulations dividends do not represent profits, but merely interest upon invested capital. To construct and maintain our street-railway properties, capital and labor are both required, and one is as essential as the other. It is just as impracticable to expect capital to be supplied gratuitously or at less than the going rate as to expect the men who operate the cars to work without pay, or for less than a living wage. The man who invests his money in street-railway stock is entitled to the prevailing interest rate for the use of his money equally with the man who makes his investment in the form of bonds. Indeed, in so far as the stockholder assumes the risk of having his principal impaired or entirely wiped out before the bonds are affected, he is entitled to something more than the bond interest rate. Public-service companies, however, should be so managed and regulated that the risk to the investor and other speculative elements shall so far as possible be eliminated, and the dividend return practically limited to the going interest rate. But if the possibility of speculative profit is removed, it is essential that the investment be reasonably secure, or private capital will not enter the field. To sum the matter up, public-service corporations do not afford a proper field for speculation or exploitation, but in order to enable them to furnish proper service and accommodations to the public their property values must be kept intact, and the payment of all costs of operation, including a reasonable interest rate upon legitimate investment must be reasonably assured in order that needed capital may be obtained.

In the past history of our street-railway companies there has undoubtedly been some waste and extravagance, and the management has not always been as alert and efficient as it might have been, but the main trouble has been that the revenues of the companies for a considerable period in the past have been insufficient to meet the actual and proper costs of operation.

Commissioner GADSDEN. To restate it, what that means is that the electrical-railway industry as an industry, so far as Massachusetts is concerned, has never been on a sound financial basis?

Mr. MACLEOD. Never been on a sound financial basis. The conditions of the companies just prior to the entry into the war were substantially the same as they had been for the last 20 years. It was not, so far as the returns indicated, in any substantially worse condition except that the effect upon the property as the result of the cumulative effect of deferred maintenance and depreciation had left the property in a poorer financial condition to stand the strain of extraordinary new expenses.

The CHAIRMAN. Was the physical condition of the property such that the companies could not give good service?

Mr. MACLEOD. Yes.

Mr. WARREN. To put it in another way, it would be true, would it not, that the income has never been sufficient to keep up the companies and properly operate them?

Mr. MACLEOD. I think I state that immediately. The legitimate investor has been receiving a very moderate return, usually less than the current interest rate, and is confronted with the prospect of a substantial loss of principal if forced to realize upon his investment. The public have had much to put up with in the way of poor service, but this service has not the less been furnished in many cases for less than cost, and at the expense of the properties and the investors. Broadly speaking, the deterioration of the properties and service of our street-railway companies is due to deferred maintenance, and that in turn is due, in part at least, to deferred increases of rates. As between the car rider and the investor, the car rider has, up to the present, had much the better of the bargain.

I take it, however, that you are less interested in the statement of abstract principles of regulation than in the practical results of their application in our Commonwealth. Recent fare increases in Massachusetts have been greater, both in number, variety, and extent, than in any other State, and the effects of such increases upon traffic and revenue are deserving of careful consideration by street-railway officials and public authorities in other States. I am submitting herewith a tabular statement showing how the various fare increases allowed in the case of 11 principal street-railway companies since 1914, with the comparative revenue results under successive fare schedules.

That is included with two or three other exhibits which I have prepared for each of the commissioners and they are in separate envelopes on the secretary's desk, so if you care to consult them later they will be available.

In analyzing these figures it is important to bear in mind that fluctuations in revenue have not been wholly occasioned by readjustment of rates. Variations in weather conditions during successive years, the influenza epidemic of last year, increases or decreases in service and car-mileage operated, the development of jitney competition and the increased use of private automobiles, and the disturbance of ordinary economic and social conditions during the war period, have resulted in marked fluctuations in the volume of traffic, even where the rates have remained unchanged.

Making every allowance, however, for the influence of these conditions, if the revenue results of the companies which increased their fares are compared from year to year with these of other companies which made no fare increase during the same period, there

is little evidence to indicate that an increase of rates offers a panacea for the present ills of our street-railway companies. In some years the companies increasing their rates have shown a smaller gain in revenue than those which retained the former 5-cent fares, and if the revenues for the year ended June 30, 1919, are compared with the revenues for the year ended June 30, 1914, in order to show the cumulative effect of all increases allowed, it appears that the 10 companies which increased their rates during this period show an average increase in passenger revenue of 31.92 per cent, while the remaining company which retained its former 5-cent fares, showed an increase of 24.16 per cent during the same five-year period. If, in order to afford a fairer basis of comparison, the Boston Elevated Railway is excluded, it appears that the normal increase of traffic on the Union Street Railway under the old 5-cent fare yielded a greater increase in revenue than was received on the average by the other nine companies as the result of their successive fare increases.

When it is pointed out that interurban fares in Massachusetts are now generally on the basis of about $2\frac{1}{2}$ cents a mile, that a straight 10-cent fare is now charged in 23 of our cities and a 7-cent fare, with a $6\frac{1}{2}$ -cent or $6\frac{1}{4}$ -cent ticket rate in the remainder, it can hardly be claimed that the experiment of increasing fares has not been given a fair trial. The results of fare increases for the smaller companies are still more significant, as it has been demonstrated that the traffic possibilities of the territories which they served have in many cases proved insufficient to support the companies under any scale of rates which they might see fit to charge.

The CHAIRMAN. In that connection, Mr. Commissioner, will you state how long these 10-cent fares have been in effect?

Mr. MACLEOD. There have been some 10-cent fares on some of these little companies that have since gone out of existence established, I should say, three or four years ago, the commission at that time realizing that a 10-cent fare, especially from the going standard of that time, was a very extraordinary fare, but feeling at the same time that these small companies were in such a desperate financial condition that they ought to be given every opportunity that was available for them to increase their revenues and retain the service, and allowed these 10-cent fares to go into effect on some of the small companies. But it had, so far as they were concerned, little or no benefit, and I think in some places may have precipitated the final collapse. The 10-cent fares have not been in effect except for a period of a little over a month in Boston.

The CHAIRMAN. These other places where you had 10-cent fares, back several years, can you give the population of some of the villages where they had this 10-cent fare?

Mr. MACLEOD. At the present time?

The CHAIRMAN. No; you said there were a number of companies that had 10-cent fares that had—

Mr. MACLEOD. For the most part those were country lines, connecting small country towns. There were no city fares on a 10-cent basis until within the last month or two. Since January of the present year the fares on the Bay State Co., whose lines affect a large number of our cities—Mr. Warren can, perhaps, tell me how many—

Mr. WARREN. I think ninety-odd cities and towns.

Mr. MACLEOD. Yes; but of cities alone I should think there must be 10 or a dozen cities—the cash fare was put on a 10-cent basis, but tickets were sold on a 7-cent basis, and most all the traffic moved on the ticket rate, and it was not until the 1st of July on the Bay State Co., and the 10th of July on the Boston Elevated Co., that a flat 10-cent fare has been put in effect in any of our cities, except a little earlier, I think in May of last year, there was a zone system put in in the city of Springfield, which necessitated a cash fare of 12 cents, I think it was——

Mr. WARREN. Ten cents.

Mr. MACLEOD. Ten cents originally and then 12 cents for rides from the center to the outlying city zones, preserving, first, a 6-cent and then a 6-cent fare area in the central section of the city. That city, by the way, is the only city of any importance in the State, I think, as I recall it, the only city in the State that has experimented with the zone system. That experiment has been tried in some of the other cities, but it did not prove to be satisfactory either from the standpoint of the company in the matter of revenue or from the standpoint of the public. The public disliked it, and they went back, practically, to the flat-fare basis.

Mr. WARREN. In Springfield it has been operating satisfactorily as a revenue producer; don't you think so?

Mr. MACLEOD. I think those are all——

Mr. WARREN. Better than the flat fare.

Mr. MACLEOD. I should very much doubt as to whether the revenue results in Springfield under that zone system are any better than they have been in Worcester under a flat fare.

Mr. WARREN. I think they have been.

Mr. MACLEOD. They have been?

Mr. WARREN. Yes.

Mr. MACLEOD. Well, that may be a good basis of comparison.

Several companies have torn up their tracks and dismantled their properties, 10 companies have entirely abandoned operation, and other companies are in the hands of receivers and on the verge of financial collapse. For the weaker companies the outlook seems hopeless, unless the communities which they serve are prepared, by some form of subsidy, to bear a portion of the burden of their operation.

These results have been due to the law of diminishing return—as traffic tends to decrease as fares are increased. Rather than pay the higher fare passengers will forego all mere convenience riding, will walk, change their place of residence, or remain at home, will patronize the jitneys, or use the railroads where lower rates in many cases are available through the purchase of commutation tickets. The revenues received even by the larger and more prosperous systems under the high fares now prevailing fall far short of meeting the legitimate costs of service under present high prices. As a practical matter, a maximum limit for fare increases is fixed by what the traffic will bear, and increases beyond that point will decrease rather than increase gross revenue. It is possible that some further increase of revenue may be obtained by raising fares still higher, although it would appear that the saturation point must be

almost reached with fares already on a 10-cent basis. If further increases are made, it is clear, in any event, that the burden imposed upon the carriers will be wholly disproportionate to any benefit which the companies can possibly receive.

The unsatisfactory revenue results from fare increases under the old regulatory system have stimulated efforts to solve the street-railway problem through new legislation. Last year the Massachusetts Legislature passed a general act to provide for service at cost by street-railway companies. The plan embodied in that act recognized the necessity of securing greater flexibility in fare adjustments, so that the revenue shall always be enough and never more than enough to meet the costs of service under fluctuations in prices and other changes in conditions. A moderate interest rate upon private capital contributed to the public service is included in the cost of operation, but any possibility of profit through a larger return is eliminated. Under this plan, the amount of the legitimate investment and the requirements for depreciation are fixed by the commission. Funds are provided for a gradual rehabilitation of the properties. A reserve fund is created to act as a barometer of revenue requirements, and as this fund falls or rises fares automatically go up or down in accordance with a determined sliding scale of rates. The control of the commission over methods of operation is enlarged and strengthened, and the public are allowed to participate in the control and management of the properties. No company, up to the present time, has availed itself of the provisions of that act.

The service-at-cost principle has, however, been recognized in two special acts providing for the public operation of the two principal street-railway companies in the Commonwealth—the Boston Elevated and Bay State companies, representing together approximately 46 per cent of the mileage, and about 72 per cent of the capital investment of all street railways in the Commonwealth. Under the plans embodied in these special acts the properties of the company are in effect leased to the Commonwealth for a period of 10 years, and the entire direction and control of the properties is placed in the hands of public trustees appointed by the governor. The trustees are required to advance the fares from time to time as may be needed in order to meet the cost of service, including return on legitimate invested capital as determined by the commission at a rate of a little over 5 per cent, in the case of the Boston Elevated Co., and of 6 per cent in the case of the Bay State Co. The Boston Elevated act also provides that any deficit in the amount necessary to meet the cost of service may temporarily be raised by assessing it on the communities served, but must ultimately be repaid by the car riders.

Under the terms of these acts the public trustees of both companies have found it necessary to establish a regular 10-cent fare. During the year ended June 30, 1919, the fares of the Boston Elevated Co. were successively advanced to 7 cents and 8 cents, but even under this increase the company failed to meet the cost of service by nearly \$5,000,000. The present 10-cent fare on that company has been in effect only since July 10 of this year. A general strike on the company's lines and other abnormal conditions during that month make it difficult to draw conclusions from the revenue figures thus far

available, but there appears to be little reason to anticipate that the company will prove self-supporting even on that basis.

The CHAIRMAN. Will you repeat that statement, please?

Mr. MACLEOD. Even on the 10-cent fare basis, unless the company in some way curtails its maintenance and depreciation program, or unless there should be some general change in economic conditions for which there seems to be absolutely no reasonable hope at the present time, there appears to be little reason to anticipate that the company will prove self-supporting even on that basis.

The CHAIRMAN. Right at that point: Since that company was taken over by trustees has the maintenance been upon a higher standard than before?

Mr. MACLEOD. Distinctly. The maintenance charges on the Boston Elevated during the past year have exceeded the maintenance expenditures for the year before by substantially \$2,500,000 which represents pretty nearly double the expenditures for maintenance alone, and there has been an expenditure of a little over \$2,000,000 of depreciation reserves over and above that amount, of which \$1,650,000 represents the increase over the previous year. In other words, the company's maintenance and depreciation programs together have represented an expenditure of over \$4,000,000 more under public control than was expended under private control, and that, of course, has been one very significant element in bringing about the financial situation and developing the increased operating cost which has necessitated an advance in fares.

Another principal reason, of course, has been the advance in wages which, during the year that the trustees were in control, represented an increase of \$4,400,000. In other words, your maintenance and wage program together represented an increase of over \$7,000,000 and the total increase in operating expense was something in the neighborhood of \$10,000,000. There were certain other elements which came in, such as increased subway rentals, owing to the opening up of new subways, increased power cost through increased cost of coal and a number of minor elements that entered into it. The situation, roughly speaking, being that, while the passenger revenue increased by about \$4,500,000 during that period, the operating costs went up by about \$10,000,000.

The CHAIRMAN. It has been shown here in testimony before us that the increased cost of material used in construction, repairs, and equipment has gone up all the way from 50 to 250 per cent. I was wondering how much of this additional maintenance was represented in the increased cost of material.

Mr. MACLEOD. It is represented in some degree, but, of course, there is not really any comparative basis on your depreciation reserve, because the company, broadly speaking, was not making any except a very limited depreciation reserve in the past, and the program of rebuilding of tracks, the physical evidences of the change in policy are patent to everybody who knows anything about the conditions of the company. The reconstruction program has been enormously larger than it ever had been before in the history of the company since I have known anything of its history.

The CHAIRMAN. What is the remaining life of this contract?

Mr. MACLEOD. About 9 years or more. The period was 10 years, and it went in a year ago.

The CHAIRMAN. Assuming that the present standard of maintenance of construction is maintained, what will be the condition of that plant at the end of the contract?

Mr. MACLEOD. At the end of the contract—I personally do not believe that the scale of expenditure for maintenance and depreciation, such as is now being followed by the trustees, will be necessary for the entire 10-year period. The trustees' program has been based largely upon an extended and very careful expert engineering investigation of the property made by Mr. John A. Beeler, who is down here in Washington, and with whom you are doubtless all familiar, and was based upon the requirements necessary to put the property back into good physical operating condition. In other words, it represents part of a rehabilitation program which ought to be completed within 3 or 4 or 5 years, and after that the scale of expenditures would be likely to be lower, and, of course, if it is possible for the company, as it will be, to cumulate a depreciation fund and invest that in new shop facilities and labor-saving machinery, and that sort of thing, there are possibilities of reducing maintenance cost as soon as they can get a chance to get new money from some source to put into the property and make those improvements.

The CHAIRMAN. Is the company charging all its depreciation and maintenance to operation?

Mr. MACLEOD. It is charging all to operation. So far as the depreciation requirement is concerned, it is significant to remember that this depreciation fund is not intended to cover depreciation in roadway and track; that renewals in ties and paving and roadway are made as part of the maintenance charge. Now, in accounting practice it has, I think, been most common to include the depreciation of your rails and the depreciation of your ties except perhaps so far as minor renewals and patching up is concerned as coming under your depreciation program. But under the system adopted by the trustees, which was in accordance with the plan outlined in Mr. Beeler's report, this maintenance program—this entire program of track reconstruction—is charged up to maintenance and not charged to depreciation.

The CHAIRMAN. Now, if the board continues this practice, at the end of 10 years you are going to have a splendidly equipped plant to turn back to the corporation. The cost of putting that plant in condition, charged to operating expenses, is all borne out of the revenue. That means that the cost to the taxpayers, or rather to the passengers, has been excessive during that 10 years. What method has been adopted, if any, to reimburse the public for the money which it expends for that purpose?

Mr. MACLEOD. There has been no method adopted; and that is simply one point, and perhaps the most conspicuous point, of several points that might be mentioned where the public interest was not adequately served in the legislation that was passed. I know when that matter came up, the commission in a prepared statement—and I myself orally before the committee—argued as strongly as I possibly could the lack of equity in the very point that you have raised and suggested that the act in that respect should be drawn upon the analogy of the law and practice of the Railroad Administration

where ample provision is made protecting the public from having the investors' profit at their advantage by any increments of value added to the property during the period of public control. But no such safeguards have been put into the Massachusetts act, although the commission used all its efforts to see that a provision of that kind was embodied in it.

The CHAIRMAN. Then, in a nutshell, the State took over a run-down plant and is going to build it up and make it perfect, turn it back to the corporation and get none of the cost back?

Mr. MACLEOD. Of course, a large part of this expenditure represents current maintenance and current depreciation requirements. I might say while this 10-year period is in operation there is a certain amount of depreciation going on during that period in addition to what has occurred in the past, but I have no doubt in my own mind, and I think I am supported in that by investigation made of the matter by our engineering department, that the present maintenance and depreciation expenditures on the Boston Elevated property, while absolutely desirable and proper from the standpoint of putting the property as soon as possible into good physical condition, and a policy which I believe in the long run will be of advantage to the public, does for the immediate present impose upon the public an additional burden owing to the necessity of making up neglected depreciation in the past.

Commissioner GADSDEN. If I understand your general statement, it was to the effect that rates in the past have never been sufficient to yield a proper and fair return on the property and set up the proper depreciation and that these properties had been allowed to run down, so far as their physical condition was concerned, in order to pay the dividends. Now if that is so, is it not entirely proper that, when the public takes over the property in the hands of the public trustees, the public should pay a fare to put the property in good operating condition, which it has not done in the past? Is there really any injustice in that? Is not the public only now paying what it should have paid all these years?

Mr. MACLEOD. I think that is an element that undoubtedly must be recognized in the situation; that is to say, if it can be shown that the properties failed to earn their way in the past, by reason of being prevented from charging a proper fare, and the public has had the benefit of those lower fares, and saved a certain amount of money that it would otherwise have paid, it might be said that it was only just that the public, who had been the beneficiaries of the old scheme, should pay the cost of making that up, and put on to one generation the burden that ought to have been borne perhaps by the former generation.

At the same time, I believe that that is a problem to be worked out by the companies themselves, under the general economic scheme of regulation and supervision, and when there is a new phase of the problem, by reason of the public's stepping in and temporarily taking charge of the properties, that all that could reasonably be expected of them would be to turn the properties back in the same condition, and then, at the end of that period, if the companies believe that they can put back the values into the property by charging increased fares, there is no reason why they should not do so.

Of course, this whole matter is affected by the underlying problem as to how far those past values can be put back into the properties by any system of fares which may be charged.

The CHAIRMAN. Have you not permitted the companies at any time to come before your commission to get adequate revenues?

Mr. MACLEOD. That is true; and, broadly speaking, no claim can be made—at least, I have never heard of any claim at any time from any responsible source up to the present time—that the unfortunate financial condition of the companies in Massachusetts was due to the fact that they asked for an increased fare, which was denied; because there was absolutely no justification for any such claim.

In Massachusetts the rate-making power began only in 1913. The old railroad commission simply had a power to deal with rates upon complaint and never really took any active part in matters of rates at all; and the most that was done in the whole period of the existence of the old railroad commission was to put in a few little minor rate adjustments at certain points, not, however, based upon any valuation of the company or any determination as to how much money the company was entitled to earn, but upon the basis of making the fares between points A and B consistent with the general fare scheme which the company itself voluntarily had put into effect for its entire system; in other words, merely to correct discriminations.

The CHAIRMAN. Then, in so far as they are charging higher fares now to permit the company to build up its property, it is penalizing the present passengers for the delinquencies of the company in the past?

Mr. MACLEOD. I think that is probably true.

It must be borne in mind that the companies were placed in an exceedingly difficult position, because it was absolutely necessary, as it is necessary now and necessary always, that the company should be kept in good financial credit, because a new inflow of capital is constantly necessary and in order to get that capital they had to keep on paying dividends, and they had to put a good financial face on their properties. The moment that they would come in to a commission to ask for an increase of rates they would have to disclose their needs, and the disclosing of the actual condition of the company would undoubtedly have affected their credit.

The CHAIRMAN. Do not the financiers or the investors up in your country do more than examine the operating sheet? Do they not always send some one over the line to look at its physical condition and make a report upon that and its possibilities as an earning property?

Mr. MACLEOD. In my experience, the investors in the past have been about the blindest aggregation of men—full-grown men—that I know of in any line of activity.

The ordinary investor looks at his return, and if his dividend comes in he does not give the condition of the property a second thought. It is only when his dividends begin to fall off that he becomes sufficiently interested in the property to look into it.

Of course, so far as the investors in the large sense are concerned, meaning the banking institutions that are supposed to follow those matters up, the banking institutions were in so deep already in most

of these street-railway properties that they were practically in the same boat with the ordinary investor, and they had to carry things along in lines of least resistance.

The CHAIRMAN. But were the new issues of this company handled by investment bankers?

Mr. MACLEOD. A great part of the street-railway management of the State and a large number of the companies in the State, very much more than the majority—outside of the Boston Elevated Co.—is represented by holding company control, and the securities underlying the street-railway company are taken over by the holding company, either as a single asset or in conjunction with the assets of other companies; and the holding company floats a set of new quasi-securities of its own and markets those, and, of course, those are handled through the investment bankers in the same way as ordinary industrial issues.

The CHAIRMAN. So that the investment bankers were putting out a security then without examining the physical condition of the property?

Mr. MACLEOD. I do not know to what extent they examined it, but an examination ought to have disclosed, if it were an intelligent examination, the fact that the property during this entire period was not on a self-supporting basis.

Commissioner GADSDEN. I would like to ask you, right there—I think you are developing a very interesting phase of this question: Now, looking at it in its broader aspects, these railroads in Massachusetts are practically roads which have been financed properly. It is asserted that there is very little, if any, watered stock; so that the values were there.

Now, was there not always an implied contract between the public and the company that the public should pay that company for the public service it was rendering, the cost of operation plus a fair return on the property involved, including the necessary reserve?

Now, if the public has not paid that during a period of 10 years, for any cause, or for one cause or another, it is the same public that has been getting the service, and in equity is it not perfectly fair that during the next 10 years, we will say, the public should restore to that property what it has taken out of it? Whether the stockholders were delinquent or not, it is a public service, it is a public company.

Mr. MACLEOD. Well, that is a perfectly reasonable point of view to take, and—

Commissioner GADSDEN. In the interest of the public, I mean—not the stockholders.

Mr. MACLEOD. And it is a point of view that must fairly be kept in mind; and the commission has several times called attention to that situation as one that would justify the exercise of a somewhat generous policy in dealing with public-service companies, where there is reasonable evidence to believe that the financial condition of the properties has been due not to graft or exploitation or corruption or extravagance or mismanagement, but, broadly speaking, to the fact that they have been giving the public more than they have been getting, and that the public, during this period, has profited by having the opportunity of riding relatively long dis-

tances for a very short fare. All these suburban communities have been built up practically as the result of the street-railway development and the policy pursued; and that is an aspect of the matter which must fairly be given due weight and consideration; and I believe that it was the controlling consideration which led to the enactment of the legislation of the Boston Elevated with respect to these particular matters in the form in which it was finally enacted; it was a recognition of that principle.

At the same time—and this matter is discussed a little bit later—I believe that there are certain phases of the situation where it is impossible, under any theory of regulation, to fix responsibility on the public and where the public can be placed under no possible obligation to recoup for losses, and that I will refer to briefly a little later.

Upon the application of the Bay State Co. for the establishment of a uniform 10-cent fare upon its system, the commission, in January of this year, allowed a minimum cash fare of 10 cents, but required the company to establish a ticket rate of 7 cents, under which the main volume of traffic has been handled. The company took an appeal from this decision upon the ground that the finding of the commission was confiscatory, but the decision of the commission was sustained by the court. For the six months ending June 30, 1919, the increase in revenue under the fares established by the commission amounted to 21.72 per cent. On July 1 of this year, the properties having meantime passed into the control of public trustees, a straight 10-cent fare was established upon all lines, in conformity with the original plan presented by the company to the commission. Under the 10-cent fare, the increase in revenue for the month of July has been only 10.06 per cent, which is less than half the percentage of increase under the former 7-cent fare.

In so far as July figures can be taken as typical—and, of course, that must be accepted with certain reserves, because the period is really not long enough to warrant the drawing of any confident general deductions—but on the only evidence available, it would appear that, so far as the Bay State is concerned, it has already passed the point of saturation on the point of the 10-cent fare; and that under the 7-cent fare, which the commission, in its opinion, when it rendered its decision in the case, said that in its judgment would yield a larger gross revenue than the fares which the company themselves asked to charge—that it would appear, as I say, that in going from 7 to 10 cents they had passed the point of saturation and if they wanted to get more revenue they would have to recede and charge lower fares instead of carrying any further the process of charging higher fares.

That is made, as I say, with due qualification from the fact that we have only one month's experience available, and that is not really a safe basis for drawing any confident general deductions; but the experience in that case is so nearly in line with the general trend of revenue results in the case of the other companies where, as I stated a moment ago, as to the Union Street Railway in New Bedford, the increase as a result of normal growth of traffic in this entire five-year period has been actually larger than the receipts on the other nine companies, which take in all the principal railways

except the Boston Elevated, which is, in many ways, a peculiar problem by itself—it was actually greater than the cumulative result of all the increases made on all the other companies; and that is not only true during the five-year period, but if you desire to analyze the revenue results in detail in this tabulated statement I have filed, you will see that it is practically borne out by the receipts from each year; and while there are differences in local conditions from time to time, it would seem to me that the experience is broad enough, and the number of companies taken large enough, to absorb and offset any individual peculiarities coming from the situation of any one company. And that whole showing, if I were to prepare a table showing the revenue results of these companies from year to year, and ask you or anyone else who knew nothing about the fare history of those cases, to pick out the companies that had been given a fare increase during that period and subdivide that by picking out the ones that had the larger fare increases, I would venture to say that you would—if you started on the basis of believing that those fare increases would be represented in revenue—you would be wrong about three times out of four.

Commissioner GADSDEN. Would not the receipts per car-mile show an increase?

Mr. MACLEOD. The receipts per car-mile would show an increase in some cases, and do.

Commissioner GADSDEN. Would they not almost universally show an increase on the roads that had gotten an increase of fare?

Mr. MACLEOD. That is true, if you are just comparing the results in Company A with the same company a year ago.

For that reason, in making this comparison, I drew it up in such a way that you could compare the revenue results of a company that had no increase during the period with those that had.

Broadly speaking, these general conditions in regard to curtailment of car-mileage, and that sort of thing, and general economic conditions and changes, fluctuations of traffic up and down, were more or less general in their character, and ought to be reflected in the revenue results of the companies that did not increase their fares in just the same way as in the case of those that did.

During the present year further attempts have been made to secure remedial legislation for our street-railway companies, but the various plans presented all failed of enactment. The gravity of the present situation under the conditions disclosed is so great that the governor of the Commonwealth has found it necessary in the public interest to appoint a special commission for an expert study of the problem, and to provide for the calling of a special session of the legislature in the latter part of this year in order to enact appropriate legislation.

In considering the remedies which are open, it must be clearly kept in mind that no legislative enactments can override the operation of ordinary economic laws. The street-railway companies have no revenue except that which is received from the public, and unless the public, in one form or another, contributes an amount sufficient to meet the legitimate cost of operation, service must deteriorate or be entirely abandoned. Every effort must, of course, be made to secure the greatest possible economy and efficiency of operation, but

the chief problem is to determine the method by which the burden of street-railway cost can be distributed with least detriment to the public interest.

In our judgment, street-railway service should be supported through the fares paid by the car riders in so far as this can reasonably be done without unduly interfering with the freedom of traffic which is essential for the business prosperity of the communities served. But when fares have been raised to a point where a further increase is likely to prevent the public from availing themselves with reasonable freedom of the service and facilities furnished, and where the burden upon the car riders is likely to be wholly disproportionate to any revenue benefits received by the company, any additional revenue needed to maintain the service should, we believe, be contributed by the communities served out of the general tax levy.

I believe that where rides of substantial length are furnished there would be little public protest and little diminution of riding if fares were established on the basis of 6 cents, or possibly higher. If that is so—and the fact can only be determined in the light of experience in each particular case—there is no convincing reason, on account of historic reasons or a mere accident of coinage, for preserving fares at the old 5-cent level. There are, however, manifest advantages as a matter of convenience, as well as a matter of psychology, in retaining the 5-cent unit of fare, and that may prove to be the wisest policy. The present policy of constant raises in fares, resulting in large traffic losses and little or no advantages to the company, is not only a grave menace to the prosperity and welfare of the whole community, but is wasteful in the extreme. As the burden of the increased cost of operation is surely heavy enough in itself, the existing economic scheme, which in effect doubles or trebles that burden for the car rider, should no longer be tolerated. Any excess revenue required above that which can be obtained under a reasonable system of fares should be directly contributed out of public taxation.

What I mean by that is the fact that if you start with the theory that the public have got to support the cost of the service, and the car rider has got to reach into his pockets and pay out \$20 in fares in order to get anywhere from \$2 to \$10 into the treasury of the company, you are simply creating a condition where, instead of the car rider meeting the legitimate advances in the cost of operation and reflected in his car fare, he is obliged to pay for them three or four times over; and that is something for which nobody gets any benefit, and the whole community suffers; and the car rider, as I believe, as the individual, is the least sufferer.

The community itself, where the freedom of traffic, the mobility of labor, and all that sort of thing is adversely affected, is by far the more serious sufferer, more so even than the individual car rider who may have to pay, through increased fares, three or four times as much as the increased cost of living and the increase of prices would seem to warrant.

Under that plan the financial drain upon the communities served would be enormously less, and the advantages resulting from the free movement of traffic would inure mainly to the benefit of the

merchant, the manufacturer, and the real-estate owner, and would thus more than offset any amount paid through increased taxation. Any payments so made, it is true, are likely to be passed on to the ultimate consumer through increased rents and higher prices paid to the local merchant or, broadly speaking, to the same class of persons who constitute the present body of car riders; but the economic waste under the existing system will be eliminated.

Other remedies besides an increase of fares may be available as a means of increasing the net revenues of the companies, such as new shop machinery and labor-saving devices and improved equipment, including the one-man cars, which may permit of a sufficient frequency of operation to reclaim a considerable portion of the traffic which has been lost to the jitney. No substantial saving can, however, be effected without new capital; and the credit of the companies is such that the necessary capital can not be obtained.

It may well be that the ultimate solution of the street-railway problem must be found through public ownership. No other method offers any reasonable prospect for the restoration of the companies' credit, which is necessary to provide needed capital. The figures presented to your commission, indicating the decline in the street-railway riding per capita, emphasizes the fact that, with the growth of motor transportation, street-railway service is no longer a public necessity to the same degree as heretofore. The street railway is no longer in undisputed possession of the field of urban transportation, and the possibilities of profit are correspondingly curtailed. While no other agency of transportation yet devised can supplant the street railway company, and the retention of street-railway service is vital in public interest, it is extremely doubtful if the street railway, under present economic conditions, can be supported wholly by private investment. As a matter of abstract theory, private operation may have many advantages over public operation, but where a public utility must be retained in the interest of public service rather than as a possible source of profit, and where private capital continues to occupy the field only in the hope of salvaging the investment already made, recourse must be had to public credit if adequate service is to be retained.

It is unnecessary at this time to enter upon any extended discussion of the problem of public ownership, as the views of our commission are developed at length in our last annual report, copies of which are submitted herewith.

If it should be deemed necessary or advisable in any case for the public to acquire existing street-railway properties, many difficult questions will arise in regard to the terms of purchase. In determining the proper purchase price, while consideration should be given to the investment cost, and perhaps also to the cost of reproduction less depreciation, the most important factor, in my judgment, is the actual or potential earning power of the companies. If it can reasonably be shown that the actual results of operation are due to restrictive legislation or supervision through the denial of needed increases in fares, the value of the property should not be depreciated because of losses due to that policy but should be based upon its revenue potentialities under the maximum fare which the traffic will bear. On the other hand, the investors must assume

the losses incident to a decline of business from general economic causes, which would have operated even if the companies had been free, like the ordinary business corporation, to fix the price of their product at the point which would yield the maximum return. If, for example, the Ford car has made it impossible for street railways to operate at a profit, under no conceivable theory can the public be held responsible for the results or be expected to make good the loss. In other words, while the public may reasonably be expected to deal fairly, or even generously, with the honest street-railway investor, he can not expect to be wholly relieved from the results of a business error of judgment in making an unduly optimistic forecast of the revenue possibilities in the street-railway field.

Massachusetts, as already pointed out, has already embarked upon the policy of public operation for about half the street-railway mileage of the State through the lease, rather than the purchase, of street-railway properties. While this experiment has, up to the present time, not proved in all respects as successful as was hoped, there is, as far as I can judge, absolutely no public sentiment whatever in favor of a reversion of the properties to the old system and insofar as there is agitation for change, it is directed toward the outright purchase of these properties. But even if we should be forced into public ownership as the only way out of our present street-railway difficulties, it must be borne in mind that no change in ownership of the properties will materially affect the cost of the service, and that under any form of operation, the public can obtain in the way of service just so much as it is willing to pay for, and no more.

The CHAIRMAN. Is that deficiency paid by the State at large, or just the municipalities that receive the service?

Mr. MACLEOD. What I have presented represents the view of the commission.

The CHAIRMAN. I was asking as to the present law.

Mr. MACLEOD. Oh! That has not received and outright recognition in the present law at all, except that a special act was passed by the legislature of last year permitting contributions toward the cost of operation and fixed charges of street railways by municipalities up to 50 cents on the dollar for the cities and one dollar a thousand for towns, which has not had much practical effect, and the provision in the Boston Elevated act, which permits of an assessment of the deficit through a levy on the State treasury; but that amount is ultimately assessed back upon the community served; but under the terms of the act that is recognized merely as a temporary expedient, and that any amount so paid out of the public treasuries must be reimbursed by the car riders, if it can be reimbursed.

The CHAIRMAN. As far as the commission is concerned, Mr. MacLeod, your statement is so complete that no cross-examination is necessary.

Mr. WARREN. I am very much pleased with the statement, although I am not surprised, because I knew the chairman of the Massachusetts Commission, through his thorough familiarity with the situation would be able to give you a comprehensive view of it.

There are two or three questions that I should like, through the chairman of the Massachusetts commission, to call to your attention, bearing on the Elevated situation. My information may not be right, but I think it is.

You asked, Mr. Chairman, about the advantage the stockholders would get in case of the rehabilitation of the Boston Elevated under the public control by the trustees.

I think the act provides, Mr. MacLeod, that in addition to any other power in taking over the property, the public may take the property over at par of the stock.

Mr. MACLEOD. That is right.

Mr. WARREN. At the end of 10 years?

Mr. MACLEOD. Although the stock cost on the average about \$110 a share.

Mr. WARREN. Yes; and that includes the West End stock at par also, as soon as that becomes Elevated stock; and that also cost about \$110.

The CHAIRMAN. What was that stock at the time the trusteeship started?

Mr. WARREN. It was pretty low at the time the trusteeship started; but this \$110—do not think of that as the market condition—it is \$110 paid into the treasury and invested in the property; and I think the par on the two classes of stock, the West End, which is under lease now but is to be merged, and the Elevated, in round numbers is something like \$5,000,000—the premium on the West End and the Elevated.

Mr. MACLEOD. Just about.

Mr. WARREN. And also under the act, I think it is a fact, is it not, that the dividend return on this Boston Elevated stock which has cost \$110, on the average, is limited for all time to 6 per cent, even though the property is returned?

Mr. MACLEOD. That is correct.

Mr. WARREN. In other words, the stock, as a result of this public-trustee control, is shorn of the right which it formerly enjoyed of paying larger dividends provided it could earn them?

Mr. MACLEOD. Yes.

Mr. WARREN. And it is also a fact, Mr. MacLeod—I do not know whether you have this in mind or not—that the Elevated Railway upon its own \$25,000,000 of stock has never paid, since the company started, over 6 per cent on the par value.

Mr. MACLEOD. Over a considerable period of time, the Boston Elevated investor who bought at the market was getting not over 4 per cent on his money. The stock at one time sold as high as \$190 a share, and at the time just before this public-control act went through, it fell as low as 27; and immediately upon the public-control act going through the stock jumped up to about 80.

The CHAIRMAN. Experience would seem to suggest that there are three things that the people up there ought to avoid: The "flu," the smallpox, and railroad securities—steam, as well as electric.

Mr. WARREN. Reference has been made to the blindness of the street-railway investors. I may also say that I am one of the unfortunate blind men, who stands before you.

The Boston Elevated was supposed by every investor—I think Mr. MacLeod will agree with me in this—practically every investor in Massachusetts, to be just as safe, or almost as safe, as a Government bond. I think well over half of the bonds of the company

were actually in the savings banks as ultraconservative investments. I should guess—I don't know, but I should guess—that half of the stock was in the hands of trustees, under probate and testamentary provisions.

I think the average dividends on the stock, from its inception, was a little over $4\frac{1}{2}$ per cent, which was not much more, Mr. MacLeod, I think, than the average rate on the subway bonds which the city issued to build the subways, and which the road, in part, runs.

Mr. MACLEOD. The financial situation of the Boston Elevated and its decline from its former high estate was due, I believe, more than to any other cause, to an overstimulation of rapid-transit development. It was believed that the construction of subways and elevated lines would reduce operating cost to an extent that would make the investment of capital justified, from an earning standpoint. But one very significant phase of the report made by Mr. Beeler into the situation of the Boston Elevated properties was the fact that, according to Mr. Beeler's investigation, the surface lines of the Boston Elevated were then being operated under the 5-cent fare on a basis that would have allowed a complete provision for depreciation and some profit over and above that, but that the transportation on the subway, through the subway and on the rapid-transit lines, for which the company received 5 cents, cost them anywhere from 7 cents to 8 cents.

While I think it is true that investors, in the main, believed that the Boston Elevated securities were absolutely sound and stable, from every point of view, I know that some very shrewd investors 10 years ago saw the handwriting on the wall so far as the Elevated was concerned. One man said to me at that time: "All you have to do is to look at the curve showing the investment per capita, the rise in that compared with the rise in income, the very small proportionate rise in income," and he said, "That spread can only go along a little further until there is a collapse." That was his view of it 10 years ago; and he showed more prescience in the matter perhaps than the public at large.

Mr. WARREN. Than some of the rest of us.

Those figures which I handed to you, Mr. Chairman, illustrate that, I think, since 1897 the investment has more than quadrupled per dollar of income.

Mr. MACLEOD. I would just like, before I close, to emphasize this one point that perhaps I have not sufficiently emphasized in my prepared statement, and I do not know that it has, perhaps, been emphasized as it should be in testimony that has been given heretofore, so far as I have had the opportunity to read it.

The difficulty of the street-railway problem, as I view it, is not so much in providing means for meeting the current costs of operation, although that problem is difficult enough, God knows, but it is the problem of getting in them new capital.

It is an absolute essential that if this industry is going to go on, you have to get new capital in.

For various reasons the street-railway securities have received such a black eye that investors will have nothing whatever to do with them; and I can not see any possibility by fare increases of any extent of restoring the companies to a condition where the investors

will be willing to buy their stock on any reasonable basis; and if you start with the theory that you have got to build up fares and the street railway's return to a point where you are going to make that investment attractive to the people who have money to invest, you have got to make your returns so much that they are going to be absolutely out of sight of what anybody ever supposed was within the bounds of possibility as a reasonable return.

It is that phase of the situation, more than the difficulties of meeting current operating charges, that has made me pessimistic as to the outlook of permanently sustaining these properties entirely through private control; and the stimulus and help of public credit is more essential in my viewpoint, in order to get in this new capital, than it is in sustaining the properties to meet present current operating requirements.

Commissioner MEEKER. May I ask a question, there? Unfortunately I did not hear all of your statement; but from what I gather, you conceive that the building of the subways was not altogether a wise thing in Boston; that it entailed an expensive operation, a capital cost that could not be recouped in the returns to the operating company?

Mr. MACLEOD. It was not a wise policy from the standpoint of the investors. Of course, it was a good thing so far as the public was concerned. But the management, partly because they may have been in a generous mood, but partly, I believe, because they made a miscalculation as to the savings—the operating savings that would result from the creation of these subways—went ahead with the program too fast. Boston and the suburban district of Boston has a more highly developed and expensive rapid-transit development than any other city in the world in proportion to its size and population.

Commissioner MEEKER. You say that it went ahead too rapidly. Do you think it will ever catch up with its program? One remark you made led me to think that you conceived this as a permanently insolvent institution, because of the enormous expenses of construction of the subways, and perhaps some other things.

Mr. MACLEOD. I personally would not want to express any opinion that the Boston Elevated Co. was at the present time or potentially in a bankrupt condition.

There are potentialities of traffic in that district that ought to make the Boston Elevated Co. a sound financial company, if there are any possibilities of return or profit in the street-railway enterprise anywhere.

I believe, to follow out your question, that it should be possible to a certain extent to catch up. The rapid-transit development program as it has been laid out has been pretty well completed up to the present time. There is some further subway extension which may be required for a short distance out in the Dorchester district in Boston, but broadly speaking, the rapid-transit development has been pretty well completed to meet the needs for the next 10 or a dozen years, I should think.

Commissioner MEEKER. You catch the drift of my question? If there is no possibility of catching up with the construction program, it would seem to me a policy of abandonment should be at once instituted.

It may be the duty of this commission, I judge, from the testimony I have heard, to recommend that investors in street-railway securities, at least in Boston, should be incarcerated in an institution for the feeble-minded.

Mr. MACLEOD. I do not know that the investors in street-railway securities in other cities showed any alarming amount of acumen.

Mr. WARREN. Thank you, Mr. MacLeod.

Mr. MACLEOD. Judging from the experience of traction companies in other States, where I think you will find that in almost every big city in the country the local transit history has been one of successive receiverships and reorganizations, while certain financiers may have profited out of those events, the ordinary everyday investor was not getting rich on those occurrences.

Commissioner MEEKER. I hope you will not think I was singling Massachusetts out. It was merely that Massachusetts was before us at this moment.

Commissioner GADSDEN. I would like to ask you a question on that point, Mr. MacLeod. We have had a very considerable amount of testimony before the commission from various sources suggesting as one of the prime causes of the breakdown of the street railways throughout the country, the watering of stock, and wrong financial methods.

As I understand you, the situation in Massachusetts is certainly as bad, if not worse, than in most States, so far as street railways are concerned, and those street railways have been conservatively and properly financed. Is that so?

Mr. MACLEOD. Those two statements are true; but I think it is post hoc ergo propter hoc.

Commissioner GADSDEN. Would not that seem to indicate that the charge that the street-railway industry has broken down largely by high finance is not sound, but that the same economic causes have been at work all over the United States?

Mr. MACLEOD. Yes; I think the statement might be made even broader than that, that in essence the conditions in the street-railway field are simply one manifestation of general economic conditions that are upsetting the industrial conditions all over the country; that is to say, it is one of the results of this extraordinary rise in the prices of wages and materials, and not only has it been large in amount, but it has been successive and consecutive, and our experience during the last three or four years in Massachusetts has been that the company might get an increase in fares, and get a little advantage, or it might show a little advantage in traffic without an increase in fares, and the street-railway officials would come around to our office and would begin to perk up and show a little evidence of cheer, and then the next week the men would demand a large increase in wages, and their last state would be worse than their first.

That has been the constant history of the situation in Massachusetts during the past three or four years, that any little advantage that might come, not only from an increase in gross revenue but from the adoption of various forms of economies of operation, which have really concealed to a certain extent the actual influence of the rise in prices—the high operating costs have absorbed the total advance gained; and this thing seems to be mounting up higher than

the traffic possibilities of the street-railway field will enable them to follow.

If this program of increased wage costs—to take one illustration—keeps on going much further, you are going to get to a point where the conditions which recently arose on the Berkshire Street Railway Co. of our State are going to be typical of other companies.

The Berkshire Street Railway Co. is one of our large systems serving the western part of the State. They were confronted with requests for wage increases, which were granted, and the company saw no means in sight by which it could beg, borrow, or steal the amount of money necessary to pay the wages on that basis; and it simply went into a receivership, and put the cars in the barn. The reserve financial strength in the companies at large is not so great that they can withstand the successive application of that principle without other companies getting into substantially the same condition unless, in some way, public credit comes to their rescue.

Commissioner MEEKER. I take it that in Boston, while they pursued a conservative financial policy, they did resort somewhat to high engineering construction, that was almost as damaging as high finance has been to other railway systems.

Mr. WARREN. The city did that.

Commissioner MEEKER. That was at the order of the city?

Mr. WARREN. Yes; the city and the legislature. The legislature.

Mr. MACLEOD. The city has built the subways.

Mr. WARREN. I do not think the company petitioned for any of those subways, did it? It did for the one at Cambridge, I think.

Mr. MACLEOD. The last subway extension, the Scollay Square extension, I think, the company did offer some resistance to, which was not very pronounced; but up to that time, whatever views the company may have maintained, it accepted all these acts with apparent alacrity. That is to say, these subway construction acts were all made subject to acceptance by the company.

Finally, when it came to a question of putting in a new subway station the company finally got its back up and said that it would not accept that particular act, and up to date it has got away with it; but that was the first time it really stood up and refused to follow the suggesting of the legislature by accepting acts providing for this subway construction.

The CHAIRMAN. I have just been informed that Judge Sanders, of Cleveland, must leave in 15 minutes. I will ask you, if you do not mind, to give way to him briefly for that reason.

Mr. MACLEOD. I shall be very glad to do so.

STATEMENT OF MR. FIELDER SANDERS.

The CHAIRMAN. We have had the Cleveland plan fully developed by Secretary Baker, by Mr. Wilcox, and by Mr. Culkins, I believe, of Cincinnati, and I think the commission is quite fully informed as to the details of the plan.

Mr. SANDERS. I am very glad of that.

The CHAIRMAN. What we would like to have from you is your opinion as to the policy of that sort of a contract, the effect that it has upon the efficiency of labor, how the city can control and super-

wise the expenditures and operation, and how under that plan the public can be assured of getting good service.

Mr. SANDERS. I take it that the commission wishes to get from me more than anything else an impression and opinion as to the advantages and the disadvantages very shortly stated?

The CHAIRMAN. Yes.

Mr. SANDERS. I will state it in five minutes, if I am able.

The plan has undoubtedly, in my judgment, been a success from the company standpoint. I think that is undisputed. The stockholders are amply protected. They have secured their 6 per cent dividends when the company was losing money in 1917 and 1918. The franchise is practically, so far as the constitution of Ohio allows, a flat guaranty.

The property has been built up, has been maintained, and has been built up to such an extent in the last nine years that it is, in the opinion of the street-railway commission, the finest surface line in the country, to such an extent that the Tax Commission of Ohio, within the last two months, has made a return upon it for tax valuation at the par value of its stocks and bonds, less debits and credits, setting one off against the other, assuming thereby that the physical value of the company, or its value as a going concern, is equal to its stocks and bonds, less its credits, is something like \$33,000,000. We are disputing that; but that, at least, is the opinion of the Tax Commission of Ohio.

It has been an entire success from the street-railway standpoint. It has been, I will be frank to say, very largely a success from the public standpoint.

In the first place, building up this very fine property has been a good thing for the car riders, because the finer the property the better the equipment, the better the cars, the faster the service, and so forth, the more satisfied the people are, naturally.

The service has been good. It has been criticized in spots but, generally speaking, the Cleveland service is considered to be very good.

The fare has been uniformly low. There is no question about that.

The company is in a very fine financial situation so far as the stockholders are concerned. The stock is selling on the market now at 102. It has sold as high as 114.

The operation of the company has been so successful in the last nine months that on the 8th of July the fare was reduced 8 per cent or more.

The CHAIRMAN. To what?

Mr. SANDERS. The fare went down from a straight 5-cent fare to 11 tickets for a half, with a penny charge for transfers.

At the same time, the wages of all the employees of the company, the office force, the clerks, the trainmen, the trackmen, the shopmen, the inspectors, the division superintendents, all went up a uniform 25 per cent, which is rather an accomplishment in street railroading in this day and generation.

This new rate of fare of 11 tickets for a half is not quite holding its own now. It is losing, perhaps, at the rate of \$30,000 a month; but I have been in hopes that, when the increased summer maintenance expense was at an end and the winter season comes on,

this rate of fare of 11 tickets for a half will carry the company through. That is all on the assumption that there is no extra labor trouble or cost, and so forth.

So that I would say it is certainly a success from the company standpoint, and very largely satisfactory and a success to the citizens of Cleveland.

Now, you may ask me why that is. In my judgment, that condition is due to first, the low valuation, with which you are familiar; everybody admits that. It is due to the franchise exemptions—

The CHAIRMAN. It is low in the sense that it is unreasonably low?

Mr. SANDERS. Not unreasonably low; but it was a low valuation at the time it was made and, of course, since that time the additions have just simply gone in at current market prices. I would not call it unreasonably low, but it is very much lower than other street railways. Then, the franchise exemptions, of course, tend toward keeping down the operating expenses—that is, the exemption from mill taxes, bridge taxes, paving taxes, cleaning-the-streets taxes, getting out of the way of public improvements, and so forth; paving and all the line of so-called extraordinary taxes do not exist in Cleveland at all. In Cleveland the car rider pays only the cost of transportation.

It is due to the development of the very latest ideas in operation, such as the skip-stop, keeping fast schedules, keeping the tracks clear, and so forth; proper equipment, I might say. Of course, Cleveland is a town where operating conditions are easy, also, and that has helped, because it is a level town. Our average ride is not as long, perhaps, as it is in other cities. I think on the five longest lines of the city, the average ride is about 3 miles—that is, for the payment of a fare.

But, in my judgment, I think the success of the plan is due largely in addition to all these things which have all helped, it is due not only to the support of the franchise by the city of Cleveland, the support of the credit of the company by the city of Cleveland, the support of the operating of the company by the city of Cleveland, such as keeping the tracks clear of vehicles, and so forth, and permitting economies to be introduced that could not be done under any purely private operation—it is not only due to that, which, of course, is a very powerful factor, but it is due to the confidence that the car rider in Cleveland has in the operation of the last eight or nine years. In other words, the settlement made in 1910 and 1909 is supported by popular opinion. We have no crucial street-railway question in Cleveland. The car riders there rode for a good many years at 3 cents. When the fare was suddenly raised to 5 cents they continued to ride. A great many of the people of Cleveland, I think, believe that this company is municipally operated, and a large part of the confidence of the car rider in the rate of fare comes from that fact, because he thinks and believes—and a great many of them know, and many of them think—that the service is being actually maintained at cost. I think that the real secret of the success of the plan is that it has the support of the people. Everybody turns in in Cleveland and helps to operate this railroad. There is not any knocking; there is not any criticism; there is not any holding back by the people. They ride on the cars and pay their fares cheerfully because they think, as I say, that

this line is not only operated at cost, but a large number of them think it is operated by the city.

Now, that, in short, is the way I size up the advantages of this plan. Now, whether that would obtain in other towns besides Cleveland, I can not say. This is a local company in Cleveland. Four thousand eight hundred of its stockholders live in Cleveland. The operation of the line—that is, the service—is controlled by local authorities, by the council and through myself, who am only the technical adviser of the council. In other words, it is a Cleveland outfit, a Cleveland enterprise.

Now, whether a service-at-cost plan with variations of that, and without the preliminary training of the people in this fundamental idea, is going to be popular enough to attract the car-riding public to the extent it does in Cleveland so as to make its operation possible, I can not say. It is a fundamental for me to tell you that a railroad can not operate unless people ride on it. You have heard that in the last two or three weeks, I suppose, 30,000 times, so I will not take up time to tell you that. The people in Cleveland do ride on the railroads and pay their fares, and they help instead of impeding it.

Now, I will be frank with you——

The CHAIRMAN. How about the disadvantages?

Mr. SANDERS. The disadvantages are two. In the last two or three years there have been two glaring things happened to this franchise which are disadvantages. One of them is what happens to all private operation and ownership—namely, a reluctance to extend the lines; in other words, a closeness of figuring in building new extensions. That fact obtains under the Cleveland grant almost as strongly as it does under purely private ownership and operation without any private control.

The CHAIRMAN. Why should that reluctance exist when the capital is guaranteed in its return?

Mr. SANDERS. For this reason: The franchise provides that the city may not require any extensions to be built which will impair their security, which will impair their ability to earn 6 per cent. And in the last two years—not quite so much now as it was in the last two years—but in the last two years they have refused to build extension after extension because of the fact that they were not quite sure of their security.

I am of the opinion that it is an absolute guaranty, but that reluctance to build extensions obtains under the Taylor grant as well as under private operation.

But the second fault is a more serious one than that. We could get past that. The second fault is the labor trouble, which is as inherent in this as in a private franchise. In other words, this company controls its own operation. All the city does is to regulate. The city does not operate. The city has no more control of Mr. Stanley's motormen and conductors than this commission has. He hires men and discharges them. He pays them such wages as he sees fit. In case of labor disputes the City of Cleveland is practically helpless. The City of Cleveland and the car riders—although they are the people who lose and not the stockholders of the company—are the innocent bystanders.

The CHAIRMAN. Has the city any veto over the wage allowance?

Mr. SANDERS. The city has a veto over the wage allowance to this extent, that it can refuse to give the company the money to pay wages with, and then in that case, the question must be arbitrated; but the city can not compel the company to pay the wages that the city thinks it ought to pay. In other words, the company fixes its own wages.

Now, we have had two strikes in Cleveland in the last seven months. One of them was about the women conductors, which was settled in two or three days after two or three all-night sessions of the city council, etc. Mr. Stanley, the president of the railroad company, insisted that he would employ women conductors. The authorities down here in Washington made two or three conflicting decisions on it, and the strike resulted. The city of Cleveland was finally able to settle that strike by intervening and settling it as a matter of agreement.

Only about a month ago, just a month ago, about the 6th of July, the blue-uniformed men on the Cleveland railway line demanded a very large increase in wages and threatened to strike. The railroad company quite properly represented to the city authorities that they could not pay any such increase in wages without an increase in their what we call allowances—that is, the fund out of which they pay it. The city council considered that matter for some two or three meetings and finally came to the conclusion that they would allow that. But notwithstanding that fact, after the city council had allowed the railroad company the money with which to pay these wages, the company refused to pay them unless certain big concessions were given by the city of Cleveland in other matters totally unrelated to this labor question whatsoever. The result was that the men struck and were out two days.

The CHAIRMAN. Name the other questions that grew out of this. Name those matters which you said had no relation to the wage question.

Mr. SANDERS. Well, one of them—they wished an increase in their operating allowance; they wished an increase in their maintenance allowance; they wished their franchise, although the same had only been entered into 60 days before, amended so as to strike out the maximum and minimum in it for the whole period of 25 years. They wanted their rate of interest return raised from 6 per cent to 7 per cent for the benefit of their stockholders. And in my judgment—and I would say it if Mr. Stanley were here—the last was the moving consideration in the action of the railroad company in refusing these wages. Because the railroad company had openly said on the floor of the council that if wages were to be increased 25 per cent, from 47 cents to 60 cents an hour, the stockholders' return ought to be increased, although the stockholders' return is a matter of contract and is fixed for 25 years. And that, inasmuch as the company had made a profit of about \$1,200,000 in the last nine months' operation under this 5-cent fare, the men should not have it all.

Now, wholly irrespective of the merits of this thing, those two questions had no relation, because the company was amply protected by the allowances of the council, by the increased operating

allowances of the council, in paying the wages. Now, that strike resulted; and it resulted from the fact that we have no more control over the operation of those lines in Cleveland, aside from keeping the safety valve on the expenses, than I have over the action of this Federal commission in its judgment.

Now, that is the fundamental difficulty of this franchise. It is a difficulty that has been pointed out several times. The party who makes the rates does not fix the wages. The wages are fixed by the private concerns and strikes are just as liable to come—and do come—to the tremendous detriment of business interests in Cleveland, under this system as they would under any private system whatsoever.

The CHAIRMAN. Do you believe the city ought to have the power to regulate wages under the contract?

Mr. SANDERS. I believe the city ought to have the power to regulate wages under the contract, provided the company is secured in its investment, as it is.

Commissioner GADSDEN. The men fix wages, do they not?

Mr. SANDERS. The men?

Commissioner GADSDEN. Yes. I do not see any difference between your system and any other system. The men fix the wages and not the company.

Mr. SANDERS. I expect, Mr. Gadsden, in this present condition the men fix the wages all over.

Commissioner GADSDEN. That is what I say.

Mr. SANDERS. But we would have had this advantage if the city officials in office had been fixing wages—we would have had only one party to deal with instead of two. We would have given them their wages or not and taken the consequences, whereas as it was, we could not compel a settlement between those two contending forces, in which the city of Cleveland was getting the worst of it. Now, that strike, I was going to say, cost the company \$80,000. It did not cost the company a cent—

The CHAIRMAN. It cost the car riders?

Mr. SANDERS. It cost the car riders \$80,000. The strike last December cost the riders \$120,000. The officials of this company draw their salaries, the stockholders draw their interest, etc., wholly irrespective of this thing; so there is no reason why that company could not keep on having these strikes all the time, so far as I can see.

Last spring in the amendments of the franchise we suggested in Cleveland that the company do one of two things—either permit the city to have some share in operating, some kind of a supervision and control of operating by which they could regulate this incessant labor trouble, at least so that the business men and the public of Cleveland would not be harmed, or else let the city arbitrate this labor trouble, offering to guarantee to the company that in the arbitration their investment should not be hazardous nor should their 6 per cent dividend be hazardous. But the company, for reasons sufficient to themselves, refused that amendment. It is an entirely proper amendment, because all you gentlemen know that a strike on a public utility is a calamity.

The CHAIRMAN. Have you any other amendments to suggest to the Cleveland plan?

Mr. SANDERS. I would suggest an amendment to the extensions. I think the company ought to be forced to build extensions so long as they get their 6 per cent.

The CHAIRMAN. Is there any amendment which can be made to such a contract as will permit efficiency in operation?

Mr. SANDERS. The only one I can suggest is to give the city part of the share in the operating control, and then the city has every incentive, of course, to efficiency, because they are subject to recall at the vote of the people and it is to their interest to keep costs down and service up every minute.

The CHAIRMAN. It has been suggested that it might be amended by adding in the contract that as the rate of fare goes down the rate of return goes up. What do you think about that?

Mr. SANDERS. Six months ago I was very much in favor of that. Academically that is a very good thing, but practically I do not believe it will work. I have commenced to change my mind on that.

The CHAIRMAN. Why?

Mr. SANDERS. In the first place, the street-railroad settlement, a franchise, must be founded on popular approval. The fixed rate of return has popular approval. The people like it. They know what they are getting. If there is a sliding scale of return, they do not know what they are getting. There is always suspicion that the operators of the railroad are getting something out of it which will detract from the proper operation. That is a political reason; it may be good or bad, but as a public officer it strikes me as a good reason.

In the second place, there is always a tendency with the operators with a sliding scale to skimp the property and not render to the riders what they are entitled to. In a corporation the size of the Cleveland Railway, which spends \$2,500,000 to \$3,000,000 a year in maintenance, 1 per cent on its stock, which would be \$300,000, could be lost sight of in that maintenance. It would be an easy matter to skimp that property \$300,000 a year and get that extra per cent, but in the long run the car riders would pay for it.

In the third place, I do not believe a dividend to the stockholders, if you will grant that you need the incentive, would get your reaction. You ought to give a dividend to the operators. They are the people that make for efficiency; it is not the stockholders. Now, if the salaries of the operators—if the president, general manager, and the head of the maintenance department have their salaries raised dependent on how much they save out of their allowance, I can see how some results could be obtained.

The CHAIRMAN. If the results of efficiency in labor go only to the stockholders, the employees might be a little bit stubborn?

Mr. SANDERS. That is possible.

The CHAIRMAN. Do the employees feel they are working for the company or for the city?

Mr. SANDERS. Both. They play one against the other. They get what they can out of the company and then come down to the city.

The CHAIRMAN. Does that result in good, efficient labor service?

Mr. SANDERS. Really, I think we do very well in Cleveland. I think our men are as efficient as they are anywhere in the country, and probably more so.

The CHAIRMAN. What is their scale of wages?

Mr. SANDERS. Since the 6th of July it has been 60 cents an hour. Before that it was 48 cents.

There is one other thing, before I finish. It is in effect in Cincinnati and it is in effect in Montreal. I have no figures on Montreal at all. The figures I have for Cincinnati do not indicate it is any benefit, because the fare has gone up from 5 cents to 7 cents in nine months. I would not say that is any evidence that this is a good plan.

Commissioner GADSDEN. They started late.

Mr. SANDERS. Yes, sir.

Commissioner GADSDEN. How about the indeterminate feature?

Mr. SANDERS. The indeterminate feature?

Commissioner GADSDEN. Yes; instead of a fixed term.

Mr. SANDERS. Theoretically and academically it ought to be permanent; practically, I think it is terminable with a renewal clause such as we have in our franchise. I say that from the standpoint of public opinion.

Mr. WARREN. Yours is practically indeterminate the way it operates; is it not?

Mr. SANDERS. Yes; the way it operates it is, to all intents and purposes, a perpetual franchise, because it is so drawn up as to make it desirable for the city to renew it in 10-year periods.

The CHAIRMAN. You have said it works there because popular sentiment supports it and they understand it?

Mr. SANDERS. Yes.

The CHAIRMAN. You have not time to answer my question now, but at your convenience will you send a letter to this commission answering the question I am going to propound? How will the Cleveland plan operate in cities like New York, Philadelphia, Washington, Boston, Baltimore, and other substantially large cities where the public do not thoroughly understand the advantages or disadvantages of that plan?

Mr. SANDERS. Well, I will try to do that, Commissioner.

The CHAIRMAN. I want your best judgment.

Mr. SANDERS. That is a large contract, but I will do the best I can.

Before I leave, I want to make this clear at this point: There is considerable talk of municipal ownership in Cleveland—a great deal of talk of municipal ownership in Cleveland. Notwithstanding the fact that this plan has worked fairly well, there is a great deal of talk of municipal ownership in Cleveland; but it is not because of antagonism to the company—they are satisfied with the company—but because the people there think it is a step forward; they think some of the defects of this plan can be cured by municipal ownership and operation, whether it is municipal ownership or only municipal operation. I have been quoted myself, many times, and I am still of the opinion that municipal operation would cure this labor-trouble defect I have mentioned, and also make the extensions possible. I am a firm believer that the people ought to get exactly what they want and are willing to pay for.

The CHAIRMAN. Do you believe, as a matter of fact, that municipal operation in Cleveland would give you better results and cheaper service than you are getting now?

Mr. SANDERS. I would not say it would be cheaper service. The people of Cleveland might be willing to pay more for service if

the service were extended out into the country. They might cheerfully pay a higher rate of fare; I do not know. I do not say it would be. I do not think it would be any more expensive, but I would not undertake to say that a lot of money would be saved, because municipal bonds are pretty nearly on a 6 per cent basis now.

Commissioner MEEKER. You have excellent service to your parks, and any place that I ever wanted to go in Cleveland I never had any difficulty in reaching it.

Mr. SANDERS. I am glad to hear that. The city controls the service and prescribes the service, and I am glad to hear that you think the service is good. We do; but it has been very severely criticized by some street-railway operators. I will try to answer that question.

The CHAIRMAN. I hope you will. It is too bad you can not stay longer.

(Witness excused.)

The CHAIRMAN. Mr. MacLeod, had you finished your statement?

Mr. MACLEOD. I am all through, unless there are some other questions you want to ask.

The CHAIRMAN. We thank you very much, indeed, Mr. MacLeod. Your next witness, Mr. Ogburn?

Mr. OGBURN. State Senator Walsh, of Massachusetts, is here, and he desires to supplement Commissioner MacLeod's testimony very briefly.

The CHAIRMAN. We will be very glad to hear from the senator.

STATEMENT OF MR. JOHN J. WALSH.

Mr. WALSH. I am a member of the State Senate of Massachusetts and a member of the special commission created by the legislature of 1919 on street-railway problems.

Mr. Chairman and commissioners, I realize with some sense of gratification that much of what I would say would be practically a repetition. I am practically an indorser of Commissioner MacLeod's statements, which are irrefutable; and I merely want to call attention to the value of a report issued by his commission and transmitted to the legislature in February, 1919. I think he has made mention of it, but it is too valuable to be regarded in a casual sense, because it contains statements of facts which can not be disregarded.

Commissioner MEEKER. Did he file that report?

Mr. WALSH. I believe he has.

Mr. MACLEOD. That is included with the exhibits I left with the commission.

Mr. WALSH. I should also like to make mention of a valuable document containing the opinion of the supreme court, contained in the Journal of the Senate for April 2, 1919, and given by the supreme court in answer to the communication of the senate as to the constitutionality of the bill filed by me which focused attention originally on the 5-cent fare with a subsidy to be granted by the Commonwealth and reimbursed to the Commonwealth by the several cities and towns in which the Boston Elevated operated.

That bill was originally presented in the course of business before the railway commission and an adverse report, with reference to the next general court, which is a complimentary disposition, very largely complimentary to the proponent of the bill, to let him down easy rather than give him the leave to withdraw. Afterwards there was a chance in the legislature to attach a rider providing for a basic 5-cent fare in an attempt to rehabilitate the State, and that was on my motion and was successful; and the success of that marked the changed public sentiment and the changed legislative sentiment in reference to a very rapidly developing and stressful situation, including successive raises of fare and growing discontent on the part of the public.

There was not only a popular clamorous demand, but there was a demand which was shared by the leading merchants of the city of Boston. I have here evidences of that in the form of newspaper accounts and interviews with people in such fashion as that [indicating]: "Boston merchants favor 5-cent fare," including accounts of the several opinions of leading men.

The basis of their support came from bitter experience. With each successive rise in the price they at once noticed a diminution of receipts, plainly due to the absence of that force which creates that term which socialists are so fond of dwelling upon, the unearned increment—in other words, the crowd—the crowd was absent, and it was absent because it had not been transported to the scenes of action, meaning to the tradesmen.

Now, with that preliminary, I should like to say that I am trying to lay emphasis on the value of these two reports—this one of the public-service commission, a trusted institution, one of the trusted institutions of Massachusetts, and the decisive utterance of the supreme court, establishing beyond peradventure the conviction of the supreme court that transportation is an indispensable public utility, and as such may be dealt with as other indispensable public utilities are dealt with—namely, by throwing some of the cost, if not all of the cost, upon the entire political party concerned. The citations are numerous and widespread, and in that regard I think it may be safely a guide as to the legal side of the question which determines us. It determines all of them.

The CHAIRMAN. I do not think there is any question about that; that is purely legislative.

Mr. WALSH. So far, as long as there is an interpretation not strained, there is.

The CHAIRMAN. You will leave it with us?

Mr. WALSH. I had intended to send to you copies which are not marked. For my own purpose I had emphasized certain things in this, especially the stress laid by the supreme court on the social features of this question, on which I wish to dwell.

Putting the argument in brief and distinct form, I would say, in behalf of the idea of State contribution to the cost after the public has contributed all that it will without any reluctance—in other words, all that it will pay without noticing that it is doing anything, that extra amount to be reimbursed to the State by the several cities and towns served, I should like to seek to establish these propositions:

First as to the economy of the proposal. It capitalizes the good will inherent in a 5-cent fare by a large increase in riding without

proportional increase in cost of equipment, personnel, or overhead expense. That is significant in many ways. In spite of the fact that we have, as every city has, peak loads—they are the rare things, taking the whole day—there is still ample opportunity for an increase in traffic and hours which are not peak-load hours. That may be done by having an attractive fare; a fare that makes it not only advisable in a business way to travel but more or less pleasant as a diversion to travel.

It makes for easier collection, smaller number of collectors, and generally lower cost of administration. The establishment of the fare involving the use of pennies called upon the Elevated to set many persons to work at a considerable wage. That is an administrative charge of some moment.

It minimizes the temptation to practice fraud upon the road. Many feel justified in evading the 10-cent fare now. It is marvelous what a relation there is between what the public conceives to be a fair charge and the disposition to be criminal in respect to a charge which the public does not consider to be fair. It is extraordinary how flexible ethics are when applied to railway situations.

It will noticeably increase the number of short-haul riders, a very large number of whom would be patrons in nonrush hours. The pleasure riders will be far more numerous at 5 cents, and pleasure riders make velvet income. In a sense, that means that the pleasure riders, since they take no more equipment, no more operating expenses, ride in the same cars except that they fill them to nearer capacity, will be a source of almost velvet income. I use the term—I think it may be understood in Washington as it is in Boston; the word “velvet” has a fairly colloquial meaning.

The CHAIRMAN. I think it is well understood in Minnesota, also.

Mr. WALSH. It holds up the values of suburban properties and also adds to the value of downtown realty by keeping up the normal rate of increase in every metropolis. Mercantile houses, or retail-in-town establishments, all theaters and places of amusement and gathering places of people, markets—in fact, every business property so used will benefit. It is the bulwark of what is called by economists the unearned increment.

It makes the hated zone system unnecessary. In Boston we have a peculiar objection to the zone system. While there is reason for establishing it in direct lines of travel between separated towns, there is no justification in view of what has happened in Boston, namely, that all our rapid-transit legislation has been based and pivoted upon the desire of the administration, municipal and State, to scatter population, develop suburban property and eliminate that Boston sore—I imagine it is not by any means unique so far as Boston is concerned—the congested area. And all our legislation—and it has been expensive legislation in Boston—and our rapid-transit construction has been theoretically upon the idea that by contributions of the entire city without stint we should distribute our population and avoid the necessary political, social, and economic disadvantages of having congested areas. We have too many such in Boston now.

I may cite, by way of sanction for what I say in that regard, that I am a member of the Boston City Planning Board, since its or-

ganization, which has to do largely with questions of housing and congestion and the disposition of the city as a place of abode.

The zone system would take away values from the remote sections and for the time being transfer them to the older and more congested areas without giving substantial and permanent values, for the reasons that as soon as these values began to appear in the downtown section they would immediately be transferred to the new residents who come to take advantage of the low fare, and therefore the advantage which is apparent at first will be nullified by the natural greed of the landlord who possesses himself of the advantage of the law of supply and demand. Of course, that needs no elaboration, now when the housing question is so imperative and demanding our attention.

As to the fairness of the proposal: It distributes the burden of an indispensable public utility which affects everyone in the community, in an equitable manner. I think that needs no elaboration.

I have here a special item, that it safeguards stockholders as does the act of 1918. Of course, this refers to my own bill. Unhappily I was forced to recognize what I regard as one of the most daring and outrageous pieces of legislative acts in all the domain of railroad procedure. In 1918 the situation briefly was just this: The Elevated was bankrupt. It sought just before there began to be legislative activity seeking or addressing itself to relief—it was quoted at 27. When that legislative act under which the Elevated is now operated became law that stock rose to 80. There were many beneficiaries; some of them are officials, some were the common and keen public, some were the stock-jobbing speculating houses which had already to a large degree manhandled all the railway situation in Massachusetts.

The contract was indefensible from any point of view except one, and that one was that in the absence of some alleviative measure the public would have been forced to accept a receivership for the Elevated with the necessary corollary that the receiver would have to act under the dominion of the court and have to collect a fare from the public adequate to pay the cost of maintenance. That, of course, gave an excuse for avoiding it. And the keen stockholders, represented by counsel—some of the most eminent in the city—made a proposal to the legislature which, in effect, was converted into a legislative propositive proposition.

In substance it was this: The legislature said to the stockholders, "You go out and raise \$3,000,000, and for the \$3,000,000 we will give you a preference at 7 per cent, preferred as to all other liabilities except the underlying liabilities of the contract between the Elevated and the former West End Street Railway Co., which is the basis of the Elevated system, the larger part of it." That West End stock was then paying 8 per cent and 7 per cent, preferred and common.

Not merely was there a guaranty of a dividend on the amount paid in, or rather the par value of all that was paid into the Boston Elevated, about \$102,000,000—a dividend which provided for the payment of 5 per cent for the first two years, 5½ per cent for the next two years and 6 per cent thereafter—but there was this amazing feature which rendered it most offensive to the public, that, after the period of public operation had been concluded, if it ever should

be, the stockholders would take back the road free of the dominion of the public-service commission with respect to rates and could fix a rate by itself which was calculated to produce a 6 per cent revenue. As a financial engineering proposition that naturally engaged the attention of the people.

The CHAIRMAN. Does that carry with it the requirement on the part of the commission to see thereafter that the rate brings in 6 per cent?

Mr. WALSH. No; absolutely free of any control of any arm or agent of the State. It was entirely a private enterprise which was permitted to—I wish to be semijudicial; I do not wish to say loot the public, but charge the public a pretty heavy rate on a defunct enterprise.

Mr. WARREN. You do not mean the public-service commission would have no control after the road was returned; do you?

Mr. WALSH. After it was returned, absolutely no control. Chapter 159 of the Acts of 1918, which permitted the public-service commission to have jurisdiction of the rates. Rates were to be fixed so that they would net 6 per cent. Of course that was the limit. I ought to qualify it by saying that the jurisdiction of the public-service commission began when the rate was 6 per cent but not before. Now, that was a provision—

The CHAIRMAN. Well, Senator, that is an exercise of a sort of power from the State. Can not the State at some future time change that provision as to the rate?

Mr. WALSH. Unhappily this was held to be an inviolable contract on the authority of the famous Dartmouth College case; and the supreme court on my own bill has so found it and had, before that time, intimated it and has, since that time, so pronounced it; so it has the triple sanction of having been pronounced a valid contract and indefeasible—a question which has a distinct relation to the question of public ownership which I shall refer to—if we exercise the right of eminent domain or take it with those contractual rights added, which add an amazing amount to the element of damage—which will necessarily be taken into account.

All the people have paid for the development of rapid-transit legislation upon the theory that all the people were interested in it. They were invited to rely upon this scheme of development in buying suburban lands and building thereon. Their way of life was pivoted upon low transit fares.

Now, I come to what I regard as the real fundamental philosophy of all this investigation and all this railway inquiry, and that is the social value.

It helps to reduce congestion. Everybody deplures and seeks to prevent overcrowding of humans. We try even to prevent overcrowding of animals in freight cars on humane grounds. Congestion lowers public morals, makes pessimists; from pessimists come those who are easily poisoned by bolshevism. Congestion lowers human values in industry and commerce by taking the spring out of men and women and shutting them out from the amenities of life.

The present scheme is an undue burden on the poor. At a 10-cent fare, which is now in force, a person obliged to use the Elevated

twice daily on the average pays an excess of \$36.50 a year; a household of two riders pays an excess of \$73; a household of three riders pays an excess of \$109.50; a household of four riders pays an excess of \$146; and so on in proportion to the number of riders from any one household. Even if rents were raised to meet a subsidy tax, they never could be raised so as to absorb the gain from a 5-cent fare.

Taking it on the basis of a \$3 increase in the tax rate, in order to produce the extra cost to one individual represented in increased rental he would have to add to the value of his property \$12,000. Obviously no such value would be added because of the wide distribution of the extra cost, the amount always being much less than is represented in the difference between 5 and 10 cents.

On the basis of the \$3 increase in the tax rate, these figures would mean \$36.50, an increase of \$12,000; \$73 would mean an increase of \$24,000 plus; \$109.50 would mean an increase of \$36,000 plus; and \$146 would mean an increase of \$48,000 plus.

If the loss of patronage through high fares equals 50,000,000 nickels a year, that amount is taken from the pockets of those who must ride. In other words, the car riders who must ride are paying for those who do not ride, because of high fares. Taking a normal increase of 25,000,000 riders as one extreme and a decrease of a like number under abnormally high fares, we see where we lose \$2,500,000. Under a 5-cent fare the amount of deficit to be made up is that much less than the difference between the total of 5-cent fares and the total of a higher fare. Why throw away that amount of money? As a matter of fact, my estimate of \$2,500,000 in the case of the Boston Elevated is very moderate, because I have this afternoon computed from the figures in my possession from the Elevated that the difference in the loss is really near 5,000,000, because the loss of patronage exceeds 8,000,000 a month that we lose, using the extreme, that is highest under 5 cents and lowest under 10. I have no doubt that the president of the Elevated will furnish you with a very orderly set of figures on that basis.

Under the political value of the proposal—and I am using that word "political value" in its broadest sense—the 5-cent fare will make friends for the Elevated Railroad and for the principle of public control. It will silence the kicker and appease him. It will please the great majority who are the car riders and restore their confidence in public operation. It is the business of legislators and persons charged with administration to please the public unless the demands of the public are unreasonable. Now, suppose the public has distinct social and political interest, it prevents the sowing of the winds; and we have been sowing the winds because we have been neglecting the pleasure of the people. We need to refer back at times to our teaching concerning the duty of the prince and the people, taught in days that perhaps may seem medieval to us, but nevertheless containing the genesis of sound political philosophy. We have not made an effort to please the people where that pleasure did not cost the sacrifice of principle or the transfer of values from one set of people to the other. And I trust it may not be amiss to ask that at least the subject be referred to in your report—the idea that the people should be recognized in their demand.

It will make the work of employees easier and the troubles of the trustees lighter. I am one of those who believe that public administrators should have their work surrounded by the best conditions. It is hard enough for honest men to serve the public under the best conditions. It is a sacrifice at best. Their work ought to be lightened in their own interest and in the interest of the public. A public administrator is more likely to give a contribution to the public good when he is in a happy frame of mind than a man who is displeased and grouchy, who is pursued by an eager and irresponsible and unreasonable public, generally unjustly. As Cardinal Newman once said, we certainly would not expect good service from a servant whom we are constantly abusing. We are more likely to receive it from a servant whom once in a while we pat on the back.

So I have not found it amiss to include in the justice of a 5-cent, or any fare that is proper, the pleasure and comfort of those who must administer it. I dare say the people will be more tolerant of annoyance through poor and inadequate service. I think it is only a truism to say we are a very docile public. Nobody needs any further proof of the docility of the American people after the service draft. That is a most splendid example in the history of docility of a great and free people. Now, they will tolerate anything if they see an attempt made to please them, and they will tolerate many annoyances which now they rebel at, because they think they are trying to be served.

Commissioner MEEKER. Do you think the public should be made to tolerate the abuses?

Mr. WALSH. No; I think they themselves will set a happy standard.

Commissioner MEEKER. I phrased my question unfortunately. I think you catch my meaning. Is there not danger that they may become too tolerant of public servants?

Mr. WALSH. I do not know that I am competent to answer the question academically. I have never found that the public was remiss in kicking. They will do enough kicking. I think, on the average, they can be trusted to that extent. They will be more tolerant of annoyances. I ought to extend that. I ought to say now they are looking for a chance to protest. If a car stops by reason of some unavoidable mishap, they are disposed to protest against it and condemn the whole enterprise.

A pleased public is a distinct asset in every community, and this pleasure is reflected upon every member of the community. On the other hand a dissatisfied public is a serious menace to progressive legislation, for every measure will be viewed with suspicion. A light public spirit is as pleasing as a light spirit in an individual.

Let us take a little example. When the father of a family—now I am thinking perhaps of Boston particularly, because we have alluring reason for going to the summer resorts; we are fortunate in our social opportunities for pleasure in that regard—when the father of a family, perhaps a workingman, takes his wife and children for a trolley ride in these hot days or nights he will feel himself a better citizen if the trip cost him 5 cents for each than if the cost is 10 cents. But we who are prosperous and fortunate in life's possessions are sometimes unfortunately blind to what a 10-cent

fare means of the income of the thousands who are receiving a minimum wage. There are still a large class of employers who believe in the minimum wage because they pay it; like the man in Pennsylvania who, asked if he believed in it, said, "Certainly I do; I pay it." And we must remember those are made up of the people whose salaries, by reason of the nature of their work, must be small—clerks in stores, attendants, messenger boys, and that class of people; and yet they are subject to the same demand for being transported to their work as is the broker and the banker, if indeed he rides in the railways at all.

Now, the proportion must be considered, because it is the proportion that makes—it is the extra amount that makes for poverty or wealth—the percentage. It is not amiss at all for us to recall that Russell Sage walked down Fifth Avenue one day with a friend and entering a haberdashery store sought to buy a pair of suspenders. He found the price was 50 cents and he walked three blocks over to Seventh Avenue and bought them for 44 cents, and when the friend remonstrated with him that he would do a thing like that, he held up a silver dollar and he said, "My boy, it is 6 per cent I have saved on that dollar." And the basis of industrial activity is much the same. We have to consider how much the poor man can save. That small saving is a fortune to him. It is the way we have made our Russell Sages, and we need to make a few small additions to our Russell Sages in our population.

The CHAIRMAN. This commission runs from 10 o'clock in the morning until 10 o'clock at night, Senator, and we have been doing it regularly since Monday morning. The adjournment hour has passed. Will it be convenient for you to be here this evening?

Mr. WALSH. I had almost concluded.

The CHAIRMAN. Well, we will hear you.

Mr. WALSH. As a matter of practical politics, I would have in all tax bills in the cities and towns affected an item called, for example, "Transportation subsidy," so that the people would know just what they were paying for this service. This new item, representing a daily actual saving to each citizen, may be used to justify economy in other municipal expenditures, and make municipal administrators keen against waste and inefficiency. It will force economies in operation to keep down the tax rate.

There are now no cheery riders on the Elevated, no cheery employees, and no cheery managers. Everybody is sore and vindictive, and they rail in vain against the wrongs of the irretrievable past.

This has been commented on in your inquiries of Commissioner MacLeod: The 5-cent-fare bill with the subsidy takes nothing from anybody and gives much to everybody. The soundest fare for metropolitan areas is the limit the public, mostly fairly disposed, will pay without reluctance.

As to dividends, they should not be proportioned to original investment or par value but to actual present value. There is no public sympathy for railway security holders because their investment was predicated on the hope of heavy speculative returns. They ought to stand or fall with the varying fortunes of their gamble without any political pulmotors like the public control bill of 1918 passed by the Massachusetts Legislature.

I ought to call attention to the fact that the public control, municipal control, is out of the question so far as Massachusetts is concerned, because of the character of service. It extends—for instance, in Boston—through the Elevated to many cities and towns which are not political members of Boston; and therefore a municipal enterprise could not stand on the limits of Boston—it would have to be State control. And I trust that in the matter of the advisability of State control, which in some measure, I expect is necessary—in fact, I think it inevitable because of the fact there is no private money for railways, and there is only a choice of two methods, one public control with private ownership and the other private management and operation; so that I think it is futile to address ourselves in the present state of the financial world to any other inquiry except as to whether we should take it under the form of contract, as was made with the Elevated, giving something to the old investors and taking it as it stands as a going concern and operating it through State control with no tenure of office on the part of the trustees to safeguard against the fluctuation made by politics, which generally costs the ultimate consumer something.

Mr. WARREN. Before the Senator goes, because I know he does not want to leave a wrong impression as to the law, I want to call the commission's attention and the Senator's attention, in order to get it on the record, to chapter 159 of the Special Acts of 1918. If the commission should get the impression that this act was a contract binding upon the Commonwealth except in certain respects indicated in it, it would be a reflection not only on the legislature which passed it but upon the attorney general's department which, I understand, was supposed to be safeguarding the interests of the Commonwealth in withdrawing it. I knew nothing about it myself at the time, as I was down here with the Fuel Administration. But the act provides in section 18, "None of the provisions of this act shall be construed to constitute a contract binding upon the Commonwealth other than the provisions which define the terms and conditions under which, during the period of public management and operation, the property under lease or operated by the Boston Elevated Railroad Co. shall be managed and operated by the said trustees, and the provision of section 13, which provision shall constitute a contract binding upon the Commonwealth." Section 13, I think, relates to the maintenance of the property in good operating condition during the period of public control and the return of the reserve fund unimpaired at the end of the period.

Mr. WALSH. I think you will find that there is provision in there which says that they shall be able to fix such a rate of fare as will insure a 6 per cent return.

Mr. WARREN. Yes; but subject to that—I will not read all of section 15; but after using the words "After the discontinuance of public operation," ending one sentence, it goes on:

The company shall thereafter be subject to public regulation and supervision in such manner as may be determined by the general court, but such regulation and supervision shall not be exercised so as to reduce the income below the reasonable cost of the service as defined in this act.

Mr. WALSH. Which included the 6 per cent.

Mr. WARREN. Which included the 6 per cent on stock.

Mr. WALSH. That is my meaning. We are not disagreeing at all.

Mr. WARREN. We are not?

Mr. WALSH. No.

Mr. WARREN. All right.

The CHAIRMAN. We will take a recess at this point until 8 o'clock.

Are there any other witnesses here for to-night, Mr. Ogburn?

Mr. OGBURN. Yes; Mr. Jackson, representing the mayor of Atlanta.

(Whereupon, at 5.20 o'clock p. m., a recess was taken until 8 o'clock p. m.)

EVENING SESSION.

The CHAIRMAN. Had you finished your statement, Senator?

Mr. WALSH. Practically; yes.

Commissioner GADSDEN. I had a question that I wanted to ask.

STATEMENT OF HON. JOHN J. WALSH—Continued.

Commissioner GADSDEN. Before you left, Senator, I wanted to ask you to give us your idea as to how, under your plan, you would handle the labor question?

Mr. WALSH. I am handicapped in making a reply, because it so happens that I am counsel for several labor unions.

Commissioner GADSDEN. So much the better.

Mr. WALSH. That does not, by any means, mean that I accord my mind to their purposes.

Commissioner GADSDEN. I do not mean organized labor alone, but how do you handle demands for repeated increases under your plan?

Mr. WALSH. In the first place, there must come a point which is generally recognized as marking the limits of a fair deal, with respect to the service of the public and the welfare of the men who furnish that service. I do not know that there is any better judge of that than the parties themselves. That is to say, they create the issue, and when a settlement is demanded one way or the other, necessarily it must be related to public sentiment as well as to the power of the enterprise to pay what is demanded.

If a portion of the cost of maintenance, the cost of transportation, is to be paid by the public, they will have a larger voice in expressing themselves on the labor question, if labor is going to enter, as it does, as the largest factor of increases in transportation costs. And the very fact that the public is saddled generally—not the car rider alone, but the whole public—is saddled with a portion of the expense will make that public much keener on the question of what is a just reward for labor.

For one, I do not believe there is any hardship in distributing the wealth, the substance of America reasonably, as long as there is not thereby created a class which is preferred as a laboring class above other laboring classes, by taking something from the substance of the other class, and thereby have the public make a specially highly paid labor class not warranted in making demands which really ought not to be made except where a special kind of service is rendered.

The ordinary railway service is not a service which requires either long tutelage or training. Indeed, conductors and motormen are

made with about four or five days' training. That has been actually done. It is not what may be classed as a highly intellectual pursuit. It is more nearly common labor, with ordinary common sense as the keystone of the arch.

Commissioner GADSDEN. Under your plan, where the car rider only pays a nickel and the balance of it has to be contributed in some way by the public, is it not probable that the carman will say to the operators of the railroads: "What difference does it make to you? It doesn't come out of you. You can go and get it from somebody. What do you stand in our way for?"

Mr. WALSH. It is true that our political mechanism, as it has been operating for the past few years, seems to be devoid of community courage; but I do not think that is going to last. I think somebody is going to rise and make it an acceptable American doctrine that the American public, as a public, will assert its rights as between contending labor forces and municipal or State conduct of public utilities.

There is one thing to bear in mind: If the municipality or State has an active part, the very fact that the tax rate is involved will make the very persons who always make a slogan of a low tax rate quite alert to see that there shall be no undue addition to it.

I have hoped, in that way, that there would be a sort of compromise or balance established between the inordinate demands, if there be such. That can only be determined by the special set of circumstances.

Commissioner MEEKER. Has the low-tax slogan been effective in keeping tax rates down?

Mr. WALSH. I am a radical on the question of tax rates. I think we have made a fetish of low taxes and ignored the substance. The tax rate is a symbol. It means or it does not mean values returned. The burden that the administrator in politics declines to take is the educational burden of telling the public what the public is actually receiving.

The public, for want of information, is likely to be deceived by taking the symbol for the substance—the tax rate rather than what is given for it.

It would be very much better, although, of course, it may sound a bit altruistic to say, to educate your public, and reframe your political conduct by going out and saying: "I do not hesitate to add to the tax rate, because I purpose to give you one dollar for every dollar and possibly more than one dollar for every dollar, which I shall add to the tax rate.

Commissioner MEEKER. You think that if the public officials take that attitude, it will be impossible for the union men or the platform men to demand exorbitant wages?

Mr. WALSH. I do. The union men are successful because of the cowardice of those they oppose; not because of the intrinsic merit, always, of their demands. It is garroting—political garroting. It is forced by the disciplined small army against a disorganized larger mass, and the want of that Rooseveltian courage which the country sadly needs, every part of it.

I have hopes, even as counsel for labor unions—I know there is a strong residuum of intelligence and patriotism in organized labor.

It is largely submerged. It is largely submerged by the vociferous who are using the old slogan that appealed to the greed of men. I do not suppose we are going to settle, in this generation, the question of human greed.

The CHAIRMAN. Is it safe for the public to permit the continuance of a state whereby organized labor imposes its might against the unorganized mass?

Mr. WALSH. Not admitting that the question is applicable to this situation alone, I am perfectly willing to answer that no such thing is safe; because the statement proves it—"imposing its will," sounds in arbitrariness. That, taken alone, would cause me to say, "No, by no means is it safe."

The CHAIRMAN. You said that organized labor could not be successful unless the public will favored it?

Mr. WALSH. I think that is true.

The CHAIRMAN. To what extent did the public will in Boston help to adjust the recent labor controversy?

Mr. WALSH. The public will in Boston was almost unanimously against the strikers. The best leaders of the union forces themselves, notably their own counsel, strove in vain to arrest them in the accomplishment of their purpose. So did their candidate for governor, who was the Democratic nominee on two successive occasions, Frederick W. Mansfield, who told me, without any imposition of confidence whatever, that they were making a mistake.

The CHAIRMAN. Who was victorious in that contest?

Mr. WALSH. The strikers.

The CHAIRMAN. In spite of the fact that the public will was against that?

Mr. WALSH. In spite of the fact that the public will was against them.

The CHAIRMAN. Then where does the public will play its part in these controversies?

Mr. WALSH. Because it is either unorganized or disorganized. Enterprises which could be benefited by an educated and instructed public have waited until the last minute to engage its attention, which has permitted the thing to drift until the issue was so keen that the public interest was involved so immediately that any salvation was better than none. It was simply a question of coming in out of the rain.

Commissioner MEEKER. Have you any evidence that the public consciousness can be so organized that it will be effective in control?

Mr. WALSH. Yes.

Commissioner MEEKER. Not merely in controlling inordinate demands for wages on the part of laborers, but in conducting the public business effectively and efficiently?

Mr. WALSH. I think that the status has changed now. I think the tide of public sentiment is running strongly against organized labor at the present moment, insofar as organized labor ignores its sacred contracts and compacts, and seizes opportunity by mere force of organization.

It may not be so easily manifest that that good will has been alienated from the labor unions, but I think the successive tests that are to ensue will show it is so, especially where large public interest is involved. It would not be so keen in the matter of a shoe

manufacturer, for example, who was advertising in the financial journals that he could afford to give a 7 per cent preferred issue of stock, and that assets back of that 7 per cent were four or five times that offer to the public. You see the difficulty is that our labor forces have begotten for themselves a wonderful education, compared with the old labor class. The relation of master and slave does not exist so much now. There is an intelligence in the labor class. Sometimes it is misled, it is true, but nevertheless in the aggregate it is very much greater, and makes a closer approximation to capital in brains than ever before. And they are reading not merely labor papers, but they know how to read the financial papers; and when they see a statement in a financial paper entirely inconsistent with the representations which are being made of poverty and inability to distribute, by raising wages, some of the earnings of the business, it does not lie well in the mind of either the labor leader or the ordinary fairly well educated laboring man.

You see, we have forgotten somehow that our educational trend has been toward compulsory education. We have raised the school age in many of the States to 16 years. No longer does the boy go out to make his way, illiterate, at 14 or 13 or at a younger age.

What I am speaking of now—I ought perhaps to confine myself to some section of the country—but I would like to be able to speak of my country as doing that generally, raising the school age, so that compulsory education is a part of a boy's accomplishment and attainment.

That has an effect, naturally, because, after all, while financiers seek to make finance a mysterious thing there is nothing mysterious about it. It is simply a question of whether there is a pot in sight and whether it will remain or diminish, or increase or diminish.

Commissioner MEEKER. Do you think a tripartite arrangement of management, such as contemplated in the Plumb plan—I do not mean the Plumb plan necessarily, but something similar to that, associating the workers, the management, and the public in a three-legged arrangement could be worked out?

Mr. WALSH. Not at all; no, sir. The element of human greed is too strong. With the obvious fact that profits are in sight the question of division will never be equitably settled.

There arise new demands; there arise new occasions for making the demands, and there will be, not unnaturally, a larger demand on the part of labor for the product—the increment—because the laborer says that thereby he will increase his stature as a man, hence his citizenship and, from the accumulation of that, the country will advance.

Who shall resist that argument if made? It is a very catchy political argument.

As long as we are a democracy where heads, not always brains, are going to turn the tide, it is going to be effective.

Commissioner MEEKER. Do you believe in public operation of utilities as they are carried on now, the public officials to manage the affairs of the utility and hire men at the market price and settle labor difficulties as best they may as they arise?

Mr. WALSH. I think there is only one equitable way: Let capital have a smaller, but certain reward, and let labor have the speculative larger reward which it produces, capital being the avenue

through which labor travels to a better condition, but capital not being disdained.

Now, it is disturbing to find anywhere that men, by a little combination, a little pool, can put their wealth together and thereby make a reward which not any one of them could make for himself, merely by the power of money.

In these public enterprises one of the strongest arguments for State control is that there is no inducement, there is no capital involved except that which can be borrowed at a very low rate, varying from 4 to 5 per cent. Massachusetts can borrow money at 4.16, and has borrowed money at that rate. I suppose if our States go into a large share of public ownership of utilities, such as railways, that the borrowing rate, by that fact, under the law of supply and demand, will go a little higher, but not appreciably, because the whole State is behind it.

That reminds me that I forgot something, and that is that those who are interested in railway securities, and who now know that private enterprise has fallen down and is likely never to be restored to full working capacity ought to be satisfied with the same return from the State that they would from the Nation. If they are satisfied to buy Government bonds—and before the war they were satisfied to buy them at 3 per cent—they ought to be well satisfied to take assurances of the State at the price the State itself has to pay.

Now, if we have public control, a contract such as the Boston Elevated has, I see no reason why 6 per cent should be guaranteed, especially when it is on a false basis; but I should be satisfied with 4 per cent, or $4\frac{1}{2}$ per cent.

Commissioner MEEKER. I do not want to discuss the economics of risk taken at all. I do not think that it has much to do with the problem that confronts this commission; but I would like you to explain a little the statement you have just made. I had understood that you were in favor of State ownership and operation. You spoke just now of the reward to capital, making that a fixed reward.

Mr. WALSH. I hope I have not been recorded fully as advocating State ownership. I am simply accepting it as almost inevitable, in view of the fact that private capital will not be forthcoming. I regard private incentive as tremendously more valuable than official inertia.

I am very sure that there is no enterprise that will not be tainted, when run by the general public, with a certain degree of inertia, merely because it is everybody's concern.

Commissioner MEEKER. Will there be counterbalancing advantages that will outweigh the inefficiency?

Mr. WALSH. Well, the elimination of the cheap attack that somebody is grafting or somebody is getting more than his share, or that capital is unduly rewarded is perhaps an asset that ought not to be disdained.

If we remove from the public their querulous attitude toward public utilities, I do not know but what, on the whole, that ought to be counted as almost of money value.

We hear so much talk now as to discourage, in all these large enterprises like railroading, the application of brains of men who

would love to do public service for a very small reward if they were not beset by the public.

We have the public trustees in Boston, every one of them men of admirable equipment, but they are made goats—I think I may properly say “goats”—of the public distrust of general railroad enterprise, because of an irretrievable past.

You ought to know that in private hands there was much inefficiency in the management of the Boston Elevated, made by the political demand. We had “students” on the pay rolls. We called them students. Perhaps they may be known in other States. Students are men placed on the pay roll at the behest of some political office holder or seeker, who do no work but simply draw their salary; and they are put on merely because they happen to have a vote or an influence with the politician who, using his power over the enterprise, is able to have his reward in that manner. That is common.

Commissioner MEEKER. Do you think that would increase under public ownership and operation?

Mr. WALSH. I do not know. I am somewhat appalled, at times, to think of plunging all the employees, especially in view of the fact that we are compelling them to be American citizens for the most part, into the vortex of politics.

On the other hand, if they go into politics as a body, they may, by that fact, force an organization of other people against them. When the public recognizes that there is a single, selfish group at work to undo the public, it is not at all strange that the public itself should take measures in its own behalf.

Commissioner MEEKER. Just one more question, Mr. Chairman. I am through with that subject, and I would like to go to another one, if you do not mind, Senator.

Mr. WALSH. At your pleasure.

Commissioner MEEKER. You spoke very strongly, vigorously, in favor of a 5-cent flat fare?

Mr. WALSH. Yes.

Commissioner MEEKER. Have you given much consideration to a zone system?

Mr. WALSH. I have given a great deal, so far as it pertains to the Boston Elevated; and I differentiate between the Boston Elevated and the other lines, because there is topographically a distinction, and financially a distinction; topographically, because if we were laying out new territory it would be unreasonable to establish any long-fare district for a single fare; it would be perfectly natural to establish a fare which had relation to the distance traveled.

In a city a different reason prevails. We seek in all our housing enterprise to decentralize population, to send it out on what may be called the periphery of the city circle, in order to avoid the evident dangers of congestion.

Commissioner MEEKER. That is the point that I am pursuing. You may decentralize population, or you may decentralize industry.

Mr. WALSH. Yes.

Commissioner MEEKER. A flat fare seems to me to have the tendency to centralize industries, and thereby increase the difficulties of transportation, properly caring for transportation; whereas a

zone system will in time decentralize your industries; so that you will have, instead of the main municipal industrial center, perhaps many industrial centers.

Mr. WALSH. That is highly desirable.

Commissioner MEEKER. With population scattered, perhaps, even more widely than under a flat-fare system.

Mr. WALSH. As a member of the city planning board, I have given a great deal of attention to the question of zones with reference to the location of industries and residential zones, distinguishing them and endeavoring to frame legislation addressed to the solution of that problem.

Of course, the difficulty is that when we establish a zone, we also have to consider the fact that there must be some proximity of residence to that of working district. While they are zones, they are so near as to overlap one the other. It is a difficult question to establish those zones. In Boston we have a peculiar place, in respect of the zone system.

South Boston has a very dense population—about 75,000—and it is all within a 2-mile radius of the statehouse; they, of course, are paying the 10-cent fare like those who live 5 or 6 or 7 miles away.

Of course they cry out; and their cry is nothing more than the greedy expression that they ought not to pay as much as the others, although, as a matter of fact, the people who live in the other section contributed quite as much as they did to the cost of rapid-transit legislation, all transit construction, or development. Neighbor is set against neighbor by the establishment of the zone system.

If you have the zone system in Boston, the immediate effect will be to raise the rents in the area of the smaller charge. It has been so. It has been so to the extent of the people moving where they could walk to the central business areas, leaving in the north and west ends, which are densely populated, a population that would not be tolerated anywhere else and is only tolerated in Boston because the undoing of it is so expensive.

I had a bill in the legislature asking for an appropriation of \$5,000,000 to reconstruct the north end, and it was rejected because the city finances were not adequate to justify its passage, although the thing sought to be done and the manner in which it was to be done were both commended.

You see, once you establish your congestion area, it is very hard to undo it except by converting it to a larger and more profitable use, industrial or commercial.

In the north end the character of the north end, in spite of fact that it is all within a single mile of the statehouse, is such that it is still, after 50 years, 60 per cent residential. Thirty-five thousand people live in a very small area, leaving scarcely any open space.

That is all because of the fact that they are close to their work and need not pay any fare to get to it.

The fare, even at 5 cents, under the old conditions, was still a considerable burden; 60 cents a week, it used to be calculated.

The west end is not unlike it. The west end is our Ghetto. There is a tremendously increasing population in the last years in the west end, increasing by building four and five story buildings and undue congestion.

The zone system would not apply to Boston with any justice at all. Moreover, it would take away the suburban values.

One of the greatest reasons for the development of the suburban areas in Boston was because the realty men made a great slogan of the fact that their territory was within the 5-cent fare.

I remember 25 years ago, when West Roxbury was being developed, which is a part of my district, that the fact that it was within the 5-cent area was the great appeal.

People went out there and built houses, some of them very substantial. They are what might be called the middle-class people. They built houses that are worth \$5,000 per house, probably, which is not very much nowadays, but 20 years ago it was a considerable investment, and it marked the middle-class man having a salary of \$2,500 or \$3,500 or possibly more. We have that class of population living there, and even they rebel against the 10-cent fare; because they adjust their way of living, and having adjusted it, they do not want any change, unless that change is accompanied by increased income.

The CHAIRMAN. We are very much obliged to you, Senator.

Mr. WALSH. You are very welcome, I am sure.

(Witness excused.)

STATEMENT OF MR. M. M. JACKSON.

The CHAIRMAN. Will you please state your position, Mr. Jackson?

Mr. JACKSON. I am an attorney by profession, and I am speaking for Mayor James L. Key, of Atlanta, as his representative.

The CHAIRMAN. Do you occupy any official position in Atlanta?

Mr. JACKSON. No; I am not an official of the city. I am simply speaking as the personal representative of the mayor at this hearing.

The CHAIRMAN. You may proceed.

Mr. JACKSON. We believe that municipal ownership is the only solution of this problem, and the situation in Atlanta, I think, is a demonstration in itself as to why that is true and why ultimately and at present it is the only one which the public will finally accept.

I think that we have in Atlanta the best representation of operation by private ownership, and I think at the same time it supplies the best illustration of why private ownership has fallen down, and why it is impossible for it to continue.

I have been surprised, in reading the hearings, the accounts of the hearings that have been sent out, and in the two days that I have been attending here, at the lack of reference to the connection of the power company with the street railway. It seems to me that the two are necessarily linked together, and that the two have to be regarded together.

To get a grasp of the Atlanta situation, you have to go back about 20 years, when the street-railway situation there was controlled by what is known as the Atlanta Consolidated, under the presidency of Mr. Hurt.

Mr. Hurt saw the connection between the street railway and the power company and the sale of electricity.

So the development started out there to bring the street railway into supplying the city and the residences of the city with electric current.

At that time the electric-light business of the city of Atlanta and the power business of the city of Atlanta was controlled by the Georgia Electric Light Co., whose president is Mr. Harry Atkinson. And I wish to say in listening to the evidence of the commissioner from Massachusetts, that Mr. Atkinson is a citizen of Massachusetts, and I do not think that the history of his handling of the properties of which he has been in charge in the city of Atlanta would coincide with the history of the handling of the Massachusetts property, from the history which the commissioner gave here this morning, as to their failure to produce results. However, I am getting a little bit ahead there.

Mr. Hurt decides to go into the electric-light business, and there starts in the city of Atlanta a fight between these two interests.

At that time the Atlanta Consolidated—and I wish you to bear these figures in mind, because they are at the bottom of our feeling with regard to municipal ownership, largely—at that time the Atlanta Consolidated was capitalized at \$2,000,000 of common stock and \$2,000,000 of bonds; I think \$2,275,000 of bonds.

The Consolidated, headed by Mr. Hurt, decides to go into the electric-light business.

The electric company, backed by Mr. Atkinson, decides that the street railway will not go into the electric-light business, but that the electric-light company will go into the street-railway business. And they clash on that.

The fight for something like two or three years, if my memory is correct, goes on.

The Atlanta Consolidated becomes what is known as the Atlanta Railway & Power Co. The \$2,000,000 of stock in the Atlanta Consolidated represented no investment of money. The only money which went into the Consolidated was in the bonds.

The Atlanta Railway & Power Co. now appears—I think it was in 1899—possibly about that time, with a bond issue of \$5,000,000, and \$2,000,000 of stock. Again the stock represents no investment of money, the bond issue representing the investments of cash.

The Atlanta Railway & Power Co. is a consolidation of the Atlanta Consolidated, and one or two small roads, and, I think, there was in that issue of bonds an amount which was to supply the electric-light plant to develop the situation, so that electric light could be supplied.

A Georgia Electric Light Co. starts with the Atlanta Rapid Transit—these companies come into the situation; now the Atlanta Rapid Transit and the Georgia Electric Light Co. are combined, and the fight is on in the city.

The Atkinson interests employ the shrewdest counsel, leading lawyers there in Atlanta, and men who know the political situation and how to handle human nature as well as legal questions; and when the fight is over, Mr. Hurt has not gone into the electric-light business, but has gone out of the street-railway business; and the electric-light company, under the name of the Georgia Railway & Electric Light Co., has taken over the properties known as the Atlanta Railway & Power Co., the Georgia Electric Light Co., and the Atlanta Rapid Transit. This, I think, was in about 1901 or 1902.

The capitalization of those three companies—I think the capital stock of the three companies, if I am correct in my memory, was

something like \$3,870,000. Their bonds outstanding were something like \$7,787,000—somewhere around that amount.

The Georgia Railway & Electric Light Co. is then organized, with a bond issue of \$7,787,000, \$5,000,000 of common stock and \$1,800,000 of preferred stock, making a total capitalization against these properties, in 1902, of something like \$14,587,000, in round numbers.

That is from 1899 to 1902 that that capitalization has come into being.

The Georgia Railway & Electric Light Co.—

The CHAIRMAN. How much new money was put into these properties during that time?

Mr. JACKSON. I personally believe that the only new money that was put in there was the difference between the total amount of the bonds of the combined companies and the bonds of the companies before. I do not believe that the stock that was issued at that time represented any cash investment at all.

If my memory is correct, there is a possible cash investment—I think, in recalling the evidence of the president of the Georgia Railway & Power Co. before the railroad commission, that there was possibly an investment in cash in that issue of \$6,800,000 of stock—I think there was an investment in cash of, possibly, \$500,000 to \$600,000. The balance of it, in my personal opinion, was water, pure and simple.

Mr. WARREN. I do not want to shorten your history of those transactions, but has there not been, since those transactions were all completed, a valuation by the railway commission or corresponding body of Georgia?

Mr. JACKSON. I think not. At the time of the hearing on the question of the raise in rates for light and for street-railway fares, the railway commission fixed its own valuation from a valuation which was made by the company's engineers, some years prior to that time.

I was not present at the hearing, but that is my recollection of the hearing, from reading the evidence.

I do not believe that there has been a valuation—that is, a going over of the entire property and a valuation such as would be considered a valuation by the commission. I do not believe that that has ever been done.

Commissioner GADSDEN. Has the commission fixed a valuation sufficient for the purpose of rate making?

Mr. JACKSON. I will come to that a little bit later, and as to how that valuation was fixed.

That was in 1902—

Mr. WARREN. If you were not present at the hearing, we are advised that there was an order and opinion of the railroad commission of Georgia, decided August 14, 1918, on the application of the Georgia Railway & Power Co. for increased fares.

Mr. JACKSON. I have that order here, if you would like to see it.

Mr. WARREN. I would like to know if it did not show a valuation.

Mr. JACKSON. It shows a valuation in that way. There was a valuation made for the company by the company's engineers. That is my recollection.

Mr. WARREN. It was adopted by the commission?

Mr. JACKSON. Which the commission used in fixing its valuation. The question of a valuation of the property is at present an open question there.

The city requested a valuation, and the commission offered to appoint valuation experts to go into it, and the city requested that the city should be permitted to appoint one of the engineers to make that valuation. The commission declined to sanction that, and so an official valuation of the properties has not yet been made other than by the company's own engineers.

Mr. WARREN. You do not think they decided the value of the properties?

Mr. JACKSON. They decided it tentatively.

Mr. WARREN. Have you the order right there?

Mr. JACKSON. Yes; I have the order here.

Mr. WARREN. I should think it might perhaps shorten it to put that order in.

The CHAIRMAN. The witness said that he would reach the question of valuation in due time.

Mr. WARREN. All right. I thought that possibly if it had been valued by the State commission, it might shorten it to put that report in.

The CHAIRMAN. I understand the witness wants to finish in time to catch a 10 o'clock train, so we will let him proceed.

Mr. JACKSON. This was 1902 that the Georgia Railway & Electric Light Co. had outstanding against it in bonds, in round numbers, \$7,787,000, \$5,000,000 of common stock and \$1,800,000 of preferred stock. That was in 1902.

In 1912 the bonds against the road had jumped from \$7,787,000; in 1912 the bonds had jumped to \$12,493,000. The preferred stock had become \$2,400,000. The common stock had become \$8,514,600. A total of stocks and bonds against the Georgia Railway & Electric Light Co. which was doing the street-railway business and the electric-light business of the city of Atlanta of \$23,467,600.

And on that issue of stock of something like \$10,900,000, the company in 1912 had been paying—and this is why I say there is a contrast between the situation in Georgia and the situation in Massachusetts—the company had been paying, for a number of years—one or two or three years, I think it was—a dividend of 8 per cent on the common stock and a dividend of 5 per cent on the preferred stock at that time.

Prior to that time they had paid a smaller dividend of 6 per cent.

I can not go back over it year by year, but for a number of years past they had been earning and they had been paying a dividend, and during the two years prior to 1912 they had been paying a dividend of 8 per cent on the common stock and 5 per cent on the preferred stock. At that time, in 1912, they had a surplus also in their treasury.

Commissioner GADSDEN. After setting up depreciation?

Mr. JACKSON. I do not believe that depreciation was set up against it, as is now being ruled.

Commissioner GADSDEN. That was just the situation testified about Massachusetts; they paid the dividends at the expense of the capitalization.

Mr. JACKSON. I understand; but the difference between this and Massachusetts is that the capitalization in Massachusetts was cash paid in. This is stock, and the majority of it water, in my judgment and opinion, with the exception of \$500,000 to \$600,000; and then a part of that stock was also issued in payment for the stock of the Atlanta Gas Light Co.

I could not give the exact proportion in which that stock was paid over, but a part of it was used as a consideration for buying up the stock of the Atlanta Gas Light Co., which was also owned by the Georgia Railway & Electric Light Co. at that time.

In 1911, the year before 1912—and I wish you would bear in mind the year 1912—the gross earnings of the company were \$4,493,309, I think it was.

Their net earnings that year were \$2,387,824, if my figures are correct.

In 1912, according to Poor's Manual, the company had available for dividends \$1,637,688.

In 1912—I have been speaking now, of the Georgia Railway & Electric Light Co.—

Commissioner GADSDEN. This is railway, gas, and electric companies' business, is it, now?

Mr. JACKSON. Yes; it owns the stock of the Atlanta Gas Light Co.

Commissioner GADSDEN. These net results are the net result of the three utilities in Atlanta?

Mr. JACKSON. Yes.

Commissioner GADSDEN. Not the railway alone?

Mr. JACKSON. I gather that some returns from gas go in there.

Commissioner GADSDEN. I do not want the commission to think that there was ever a street railroad that made any money like that.

Mr. JACKSON. I think my recollection of the amount paid by the gas company was only a very small part of that money.

Commissioner GADSDEN. What was the electric light?

Mr. JACKSON. It is the marvelous Massachusetts brain operating in Georgia as distinguished from operating in Boston. I think it is the effect of the climate.

Mr. WARREN. Was there not some water power, too? There was some water power, was there not?

Mr. JACKSON. Yes; there was some water power at that time.

Now, in 1912 we come to another company. That year there appeared on the scene the Georgia Railway & Power Co. The Georgia Railway & Power Co. was incorporated at approximately that time.

I want you to go back in the history of the Georgia Railway & Power Co. a little. I could spend the night here if I had all the facts with regard to the various companies that preceded the Georgia Railway & Power Co., but I wish to mention a few of them.

There was the Atlanta Power Co., which had a capitalization of \$50,000 and appears on the scene at one time as subscribing for a million and a half dollars of stock of the Georgia Power Co.; that is another company—not the Georgia Railway & Power Co., but the Georgia Power Co.; and some \$1,500,000 of bonds of the Georgia Power Co.

There is another company which comes into the scene, the Blue Ridge Electric Co., which was capitalized at \$50,000, with a bond issue of \$1,350,000, I believe.

Now, these two companies were formed in an effort to reorganize what was known as the North Georgia Electric Co.

The North Georgia Electric Co. in 1908, according to a report made by Mr. Charles E. Parsons, had a capital stock, authorized, of seven and a half million dollars. It had bonds authorized of seven and a half million dollars. Of the stock there had been issued only \$917,000, and of the bonds there had been issued at that time something like \$13,000, with the exception of \$450,000 that were held under a trust agreement.

The assets of that company, with that authorized stock and bonds, the assets of that company were given at \$884,764 in this report of Mr. Parsons.

Then there comes in another company, the Etowah Power Co., which was capitalized at \$274,100.

I will not undertake to go into the various deals between those companies, because I could not give them all clearly myself; but the long and the short of it is that out of those three companies comes the Georgia Power Co., which starts out with the proposal to issue \$20,000,000 of bonds and \$1,550,000 of common stock.

They go back to the railroad commission two or three different times, on a different deal each time; there was evidently, from reading the record of it, some difficulty in getting the thing financed, the stock and bond issues all properly adjusted; but the long and the short of it is that the Georgia Power Co. appears ultimately on the scene with \$10,000,000 of bonds and \$10,000,000 of stock.

It enters into a contract with the Northern Construction Co.—and here, I believe, we come across one of the greatest of the evils, in my judgment—we come to the Northern Construction Co. or the Northern Contracting Co., one or the other—and the Georgia Power Co. enters into contract with the Northern Construction Co. to turn over, for the development of certain properties in north Georgia, the \$10,000,000 of bonds which are to be sold to finance the development, and then the \$10,000,000 of stock is to be turned over to this construction company. In other words, the bonds and the stocks of this company are practically to be turned over to this construction company for the development of the company's property.

Now, we have come down to about the period of 1911 or 1912. We have these various companies centering up in the Georgia Power Co. with \$10,000,000 of bonds and \$10,000,000 of common stock.

There then appears on the scene the Georgia Railway & Power Co. with an authorized bond issue of \$30,000,000, \$2,000,000 of first preferred stock, \$10,000,000 of second preferred stock, and \$15,000,000 of common stock.

The CHAIRMAN. A total of how much?

Mr. JACKSON. A total of \$57,000,000.

All of those bonds have not been issued. I think something over half of them are to be issued. They are to be issued as the property develops. But that is what Georgia and Atlanta are looking forward to.

Now you have come down to the situation where you are confronted with two companies: The Georgia Railway & Electric Co.,

which is doing the street-railway and the lighting business of the city of Atlanta, with a capitalization of \$23,407,600 and odd, with more bonds authorized there; they are authorized, ultimately, to issue \$20,000,000 of bonds against the Georgia Railway & Electric Light Co.

But at that time the outstanding securities against that company were \$23,407,600; that is, in the city of Atlanta, doing the street-railway and electric-light business in the city of Atlanta in 1911, paying 8 per cent dividends, and putting up a money surplus in their treasury, and having available, as Poor's Manual shows, for dividends, in the year 1910, \$1,637,688.

Now, the Georgia Railway & Power Co. buys out the Georgia Power Co. That company disappears from the scene; and you see only the Georgia Railway & Power Co. owning the Georgia Power Co., and with all of that various ramification in stock running back and culminating in that authorized issue of \$57,000,000 of securities.

The Georgia Railway & Power Co. now, and the Georgia Railway & Electric Light Co.—the Georgia Railway & Power Co. makes a lease, and this lease is somewhat different in its results from the leases that I have heard mentioned here in New York as to their effects on the company.

I think that like the leases though it is the center and the heart of the whole trouble, so far as private ownership is concerned.

The Georgia Railway & Power Co. leases all of the properties and franchises of the Georgia Railway & Electric Co.

In consideration of that lease, it guarantees a dividend of 8 per cent on the common stock of the Georgia Railway & Electric Co. and 5 per cent on the preferred stock.

It turns over to the stockholders of the Georgia Railway & Electric Co.—I think it is \$3.12 per \$100 of stock, of the first preferred stock, and then turns over—that, by the way, I think, in round numbers amounted to something like \$260,000; \$200,000 odd of the first preferred stock which it turned over to the Georgia Railway & Electric Co.—then it turns over \$10,000,000 of second preferred stock to the stockholders of the Georgia Railway & Electric Co., and its contract is to pay this dividend annually of 8 per cent on this stock, 5 per cent on the preferred stock, to pay all maintenance charges, to keep the property up, to pay all taxes, and to return the property in as good shape as it was when turned over to them at the expiration of that lease. They made a wonderfully good trade.

That year, as I have stated, available for dividends was \$1,637,688.

For some reason now, which I can not account for, and which I should like some expert street-railway man to account for for me, the next year the earnings go down, the year after the lease, 1912, apparently, was the high-water mark.

In 1912, according to Poor's Manual, they had available for dividends \$1,430,805.

In 1914 they had available for dividends \$1,365,242.

In 1915 they had available for dividends \$1,231,461.

Immediately after the lease the money which was available for dividends immediately began to go down.

Commissioner GADSDEN. After 1912?

Mr. JACKSON. Yes. And after the making of the lease between the Georgia Railway & Electric Co. and the turning over of their

property to the Georgia Railway & Power Co., the earnings, apparently, of the Georgia Railway & Electric Co. began to go down immediately.

Commissioner GADSDEN. What is your deduction from that?

Mr. JACKSON. I can not account for it.

Commissioner GADSDEN. Because we have had testimony to show that that was the trend on nearly all the street railway companies throughout the country after 1912.

Mr. JACKSON. My investigation of the reports of the Georgia Railway & Power Co. to the Railroad Commission of Georgia would indicate that their income from the street railways at that time did decrease. However, they still had, and I want to call the attention of the commission to this—that figure, there, of \$1,637,000 the year that lease was made—and this is what gets into the Atlanta citizen's mind who has studied this subject out—that amount was sufficient to have paid a dividend of over 80 per cent on Mr. Hurt's little Consolidated back there. It was sufficient to have paid a dividend of over 42 per cent on the combined stocks of these companies which went in to make up the Georgia Railway & Electric Co. the year that lease was made.

All of that money, all of that stock, in the minds of the public, 99 per cent of it, is water. We are confronted with this loss. We are confronted with another situation with regard to it, and if the war had not come on and no other catastrophe had come on here is, in my judgment, the thing which would have caused the Georgia Railway & Power Co. insuperable trouble in the end, if the law with regard to rate making, as I understand it, is strictly construed and followed out.

In their issues of bonds they are limited to a certain amount of improvements from their bonds. In other words, if they sell a bond—and all the bonds, I believe, have been sold at from 80 to 85—I think the limit of improvements from issues of bonds is 75 to 80 per cent. The balance has to come from somewhere. They have to get the money from somewhere to put it in. They can not get the money from their stock, because their stock has all been issued practically, and if it were not issued, no one would buy the stock, in my judgment, to put the money into it on account of these securities and on account of the conditions. But they have got to get for each \$1,000 bond that they sell and put into improvements the difference between 85 and par to make up the thousand; then they have got to get the difference between the amount they are permitted to invest from their bonds from the balance. In other words, they have got to get something like 30 to 40 per cent of the amount that goes in from their earnings.

Now, I know of no law or theory of law which justifies rate making for the purpose of making permanent improvements. When the application of the Georgia Railway & Power Co. was made during the course of the war for authority to increase all rates on electricity and authority to increase the street-railway fares, one of the pleas which was made—and I believe it was the deciding plea that controlled the issue—was that there were certain contracts which had been made for the development of certain of the properties of that company in north Georgia; that unless they got that

money from their fares and their sales of current they simply could not meet their obligations in connection with their contracts.

One of their obligations was the transfer of a dividend from a dividend to a fixed charge; that is, 8 per cent on that common stock of the Georgia Railway & Electric Co. and 5 per cent on the preferred stock has now become a fixed charge against the people of Georgia in the development of that property. They have got to get the money from somewhere to make up this difference between the amount that they sell their bonds for, the amount which they put into, not keeping up their property, but in developing their property in north Georgia. And the citizens of Atlanta who have devoted some study to it do not feel that the property there in the city of Atlanta should be used for the purpose of developing the property up there, when these fares and the rates which are being charged are, in their judgment, exorbitant.

Now, I want to call attention to a few figures which I have gotten hastily from the reports of the company and showing the results of the street-railway operations there in Atlanta. According to the reports made to the railroad commission the operating revenues of the street railway for the year ending December 31, 1918, were \$3,731,212.41. The operating expenses during that year, according to this report, if I understand it correctly, were \$2,144,570.31; making the net from the railway alone \$1,586,642.10.

Now, bear that figure in mind and consider this: That applies purely to the operation of the street railway. Now, they also got by this lease an electric-light plant. They got their customers, they got the business in the city of Atlanta, which should also be added to that. To arrive at that, the railroad commission in its decision stated that the average price paid for current in the city of Atlanta was a little over 1.3 cents per kilowatt hour. I wish to say that I do not agree with that. I think there is a wide difference there, but I am accepting their figures.

Commissioner GADSDEN. 1.3 cents?

Mr. JACKSON. 1.316—that that is the average rate. If you will investigate you will find that there are only 149 customers of the Georgia Railway, Light & Power Co. that can ever get down to that rate, out of all of their thousands of customers. Therefore, I do not think it is a correct statement of the average, but I accept it, as the railroad commission has stated it is the average and it has been used several times by the company as being the average. There are 10,950 homes in the city of Atlanta that use electricity. Charging the company simply with the average rate for current or a little above it, 1.4 cents, and figuring that the average home in Atlanta uses \$4 worth of current a month, that would make the net income from electricity \$433,620, simply from Atlanta homes.

Mr. WARREN. May I interrupt—

The CHAIRMAN. Is not your average pretty high?

Mr. WARREN. Do you know how low the charge goes? Does not the charge for some customers go as low as 4 mills?

Mr. JACKSON. Yes; to the 149 that I refer to.

Mr. WARREN. That includes them?

Mr. JACKSON. We have an extraordinarily low manufacturing rate in the city of Atlanta.

Commissioner GADSDEN. Could not you get the exact figures from the commission?

Mr. JACKSON. Yes; I have them.

Commissioner GADSDEN. Why do you estimate them when the exact figures are available?

Mr. JACKSON. I estimate it because I can not get the exact amount of current each man burns in that way.

Commissioner GADSDEN. I think your \$4 is pretty liberal.

Mr. JACKSON. Well, you could reduce it—

Commissioner GADSDEN. Especially at a low rate like that.

Mr. JACKSON. But I am coming to that. That is where my quarrel with the low rate is. There is not one of those 10,950 homes that can ever get a single kilowatt of current at that rate. The lowest rate that they can ever pay for a single kilowatt of current in an Atlanta residence is 4 cents; that is my recollection.

Commissioner GADSDEN. What is the highest they pay?

Mr. JACKSON. Eight cents. It was raised from 7 to 8 cents by this hearing. Now, in the city of Atlanta there are 3,545 business customers of the company. Their maximum is 8 cents. I have figured as an average for them—and while possibly I have figured the home average too high, I think I have possibly figured this a little too low—that the average business customer will use which would amount to something like \$15. That would make, after charging the company the average price and deducting it, their income from that class of customers \$518,988.

They have 1,375 retail power users in Atlanta. I think I figured a little bit low here again. I have figured they would average 500 kilowatts and an average bill of approximately \$21. Again, charging the company simply its average rate, I find that the income from those three classes of customers on those averages would be \$1,183,608.

Now, to get the figures for last year—for the year 1918—the rate was not raised. To figure what it would have been if it was at the 7-cent rate I have deducted \$150,580, to get it at the 7-cent rate. The earnings, then, for the company for that year from these three classes of customers alone would be \$1,033,028, which should also be added to that net, up there, which comes in from the street railway under this lease, which this company is drawing under this lease.

Commissioner GADSDEN. That is not net, is it? That is gross.

Mr. JACKSON. No; I gave you the net income, too; I gave you the operating expenses.

Commissioner GADSDEN. That is gross for the light and power business, is it not?

Mr. JACKSON. No; you did not catch what I was doing.

Commissioner GADSDEN. No.

Mr. JACKSON. For instance, the company says the average price of electricity is 1.3 cents. Now, out of each customer's bill there I have deducted that amount. In other words, I have said that the cost to the company was simply the average at which it says it sells power in Atlanta, which I think is a fair base to figure on. If the average selling price in Atlanta is 1.3—if that is the average, then it is fair to assume that it does not cost the company—that their operating expenses are not more than the average selling price in the city. So I

have deducted that, and I figure that that figure is, in my judgment, net. Of course, it is subject to the criticism that it is an estimate.

That is only three classes of customers, mark you. That leaves the cream of the business to the company—that is, for manufacturing.

Now, there is another source of income which comes in there which also has to be borne in mind. The Georgia Railway & Power Co.—the circular selling its stock refers to its contract for 65 years for the sale of electric current to the Georgia Railway & Electric Co. Therefore, there should properly be added also the profit which the Georgia Railway & Power Co. is making on the sale of that electricity to that company. If my recollection of Mr. Arkwright's evidence before the railroad commission is correct, the amount of current which that company used in the city of Atlanta during the year 1917 was something like 35,000,000 kilowatts—quite a considerable sum, which should also be added to the profits from that lease which this Georgia Railway & Power Co. is drawing from the street railway.

I want to call your attention to this: The operating revenue of the railway—I am leaving out, now, the electric current—increased according to the reports to the commission, during the year 1918, \$587,084.38. That is strictly the railway. The operating expense increased during the year 1918, \$433,011.10. In other words, the operating revenues increased, during the year 1918, \$154,073 more than the operating expense increase. The revenue is going up above the operating expense.

The total operating revenue of the Georgia Railway & Power Co.—this is from all sources, now—during the year 1918 was \$7,584,362, an increase of \$920,604.84.

The CHAIRMAN. Over the prior year?

Mr. JACKSON. Yes. The total operating expense in 1918, according to these reports, was \$4,790,946.40, an increase over 1917 of \$781,147.97. In other words, the operating revenue in 1918 increased \$139,000 and odd more than the operating expenses increased.

I want to call your attention also to this fact—and this brings you back to our contention with regard to the railway in the city of Atlanta being used to carry these developments: While the operating revenue of the railway increased \$154,000 and odd more than its expense, the operating revenue of all of the companies combined increased less than that—something like \$139,000, if my figures are correct, and I think they are.

Now, the operating revenue—I want to go back, because it shows each year—the operating revenue is increasing and keeping ahead of the operating expense each year.

The operating revenue on the road in 1917 was \$3,141,128.03. The operating expense of the road in 1917 was \$1,711,559.22, leaving net from the road \$1,532,568.81. The operating revenue increased in 1917 \$308,763.54, the operating expenses increased \$205,539 and odd cents, making the revenue increase over the operating expense of \$103,000 during that year.

Commissioner GADSDEN. Can you give us the increased charges on the capital account as you go along?

Mr. JACKSON. No.

Commissioner GADSDEN. I suppose they were spending money on betterments and cars, so the interest charges were increasing, but it

would be interesting to see if that increase was not more than consumed by the increased capital account.

Mr. JACKSON. In connection with these figures I wish to call attention to this: That in my examination of the report in the railroad commissioner's office I found a difference in figures which was evidently an error; but still should these figures ever come into question one way or the other I wish to call attention to that.

The 1918 report in the railroad commission's office gives the operating revenue of the road as \$3,056,872.86 in a certain place. The 1917 report gives what was apparently intended for that same figure, \$2,991,565.46.

In 1916—we go back again—the operating revenue of the road was \$2,835,478.18 and the operating expense \$1,506,019.68, leaving the net income from the railway alone \$1,329,448.50.

Now, I have not each year gone over those details with regard to the rates from current; but I wish the commission, in considering this thing, to bear in mind our contention that each year to that net from the railway should be added the net from the electric-light business in the city of Atlanta, which the Georgia Railway & Power Co. took over by virtue of this lease.

Now, before passing into the general subject with regard to this, there was one other item. The first six months of 1919 the operating revenue of the road was given at \$2,090,051.90. The expenses given in that statement as \$1,301,794.67, leaving the net from the railway for the first six months of this year, \$788,257.23. The operating expense increased during that time \$273,546. The operating revenue increased during that time \$250,708. For the first time the expense increased apparently more rapidly than the revenue. But to relieve that, the street-railway returns for July show that during the month of July the street railway's income was \$106,142.66 greater than it was during July of last year, so that you can see that the same thing is really keeping up now and that operating revenue is really going up all the time faster or in a greater amount than the operating expense.

Now, this situation: Go back now in mind—and this is why I say that municipal ownership—

The CHAIRMAN. You have completed your detailed analysis, have you?

Mr. JACKSON. Yes; practically. The Atlanta man who has studied this subject—and a number of them have—looks to that capitalization in 1902 of \$3,870,000 or thereabouts, \$3,000,000 or \$4,000,000 of capital stock outstanding against these properties and a bond issue of a little over \$7,000,000 standing against them in 1902, and they turn to 1912 and see overshadowing them in the Atlanta properties alone \$23,000,000, and then this Georgia Railway & Power Co. on top of it, making a total capitalization that will be in force at the expiration of 30 years, or less than 30 years, of \$87,000,000 against these properties. And it does not set well with us. Those of us who believe—

The CHAIRMAN. What conclusion do you derive from the facts?

Mr. JACKSON. The conclusions that I derive from them, Mr. Commissioner, are that any way you get at it, there is a large volume of water in this property that only an audit and a valuation will ever

bring out and prove conclusively as to what it was, and that there is a large volume, millions of dollars.

For instance, at the time this lease was made and this whole proposition came up before the Railroad Commission of Georgia for approval, two of our commissioners, when the proposition first came up, declined to sanction this issue of stock. I think they cut off of the amount that was applied for 10 or 11 millions of dollars.

The CHAIRMAN. Have accountants examined the property to ascertain the amount of the original cost?

Mr. JACKSON. If accountants representing the public have ever done that I have never come in contact with their figures.

The CHAIRMAN. So the commission has only made the valuation in the way that you have outlined in the beginning of your statement?

Mr. JACKSON. Yes. The commission has been once or twice on the verge of making a valuation of the property. At one time back a few years ago there was a fight between the city of Atlanta and the company, one of these recurring pleasantries which will always occur when private ownership is in existence; and they were on the verge of having a valuation and the then city administration and the company got together and the \$5,000 or more that was in sight to pay for a valuation disappeared and the subject of valuation was forgotten.

The CHAIRMAN. I think they might as well have forgotten it, if you only had \$5,000 to do the job with.

Mr. JACKSON. Now, this last time that the question of valuation came up there was also a question of money involved, but there was also the question of who should make the valuation. The railroad commission had handed down a decision using as a basis for their valuation the valuation that had been made by the employees of the company.

The CHAIRMAN. That is they took the inventory?

Mr. JACKSON. They took the inventory and went over it. And from their knowledge of the properties they took that and formed their conclusions from that.

The CHAIRMAN. And what conclusions did they reach?

Mr. JACKSON. I can give you the exact figures. I think the total valuation of all the properties together was \$39,000,000—\$35,000,000 to \$39,000,000. But neither the commission nor the city were satisfied with that valuation, I think. Then the proposal came that experts should be appointed and a certain amount should be put up by the city and the power company to make a valuation. Then came the city's contention that in this valuation which was then made the city should have the right to select one of the valuers of the property, and there is the snag that the present valuation has been held up on. In other words—

Commissioner GADSDEN. Who objected to that, the company or the commission?

Mr. JACKSON. The commission objected to it.

Commissioner GADSDEN. Are you before us in the sense of an appeal from the action of your own commission or from the company's action?

Mr. JACKSON. No, sir; I am here before you not appealing from our commission, because we can settle our own difficulties down there between us.

Commissioner GADSDEN. But to-day you are not protesting against their action?

Mr. JACKSON. Personally I am not in accord with the commission's finding on that, and I am hoping when the supreme court hands down its decision—they have held it up a long time, so you gentlemen are evidently not the only ones worrying over these problems—but the decision is now before the supreme court, unless the decision has been handed down since I left Atlanta, on which this whole question hinges.

I am trying to give to you gentlemen here a picture of what to my mind proves conclusively the impossibility of a privately owned concern and a city and a perfectly honest and competent commission ever settling this problem. In other words, that as long as there is the interest of the public and the interest of the property owner trying to get his returns out of it, there will be an interminable row that can not be settled. But I wish to be particularly understood as not appealing to you from the situation there. I am simply giving you a picture of the conditions as they strike me.

The CHAIRMAN. What street-car fare has been charged down there?

Mr. JACKSON. Six cents at present.

The CHAIRMAN. When did it become 6 cents?

Mr. JACKSON. I think it went into effect about April last, if my recollection is correct—April or May.

The CHAIRMAN. Does the company keep its property in good condition?

Mr. JACKSON. I should say that the property was in fair condition in the city. I think we suffer somewhat from flat wheels, and a few other things.

Mr. ARKWRIGHT. That has nothing to do with maintenance, does it?

Mr. JACKSON. No, no; and the wiring.

Mr. WARREN. The commission spoke of it as being especially well maintained, did it not?

Mr. JACKSON. Yes. As I stated at the outset I think for a privately managed property—in other words, if we have got to have private ownership, we would rather have the present men in charge of it than any others that I know of. But we are violently opposed—we are strongly, not violently, opposed to those gentlemen remaining in charge of the situation there.

Now, I have devoted so much time to that, but I want to call your attention to a few things about this situation generally.

The CHAIRMAN. Will you bear in mind that you have to leave here at 10 o'clock?

Mr. JACKSON. Yes; but I would prefer, because I have not seen these facts presented, to miss that train than miss the opportunity of giving them to you as to the situation elsewhere. It will take me only a few minutes.

I want to call your attention to the situation as to the only commodity that has been mentioned in this country that has gone down in price. At the very time that the Georgia Railway & Power Co. was appealing to the Railroad Commission of Georgia for a raise in its electric rates, Mr. Beck, chairman of the Ontario Commission, was before the Water Powers Committee of Congress here

giving the history of that wonderful development of the municipalities up there in handling the electric-light problem and the electric-current problem, where the rates have been reduced—the rates from which we are suffering in Atlanta and Georgia—down to two, three, and in some cases five times below what Georgia has. During the years that this country has been at war the rates in Canada have been going down each year on these municipally operated power plants through the hydroelectric-power commission. They are just about to indulge in the operation of their street railways and their interurban railways; that is the next step in that development up there. All of this problem is being handled in that way.

Now, I have heard the question here of the lack of initiative and of development. Those plants up there, according to reports which come down, are developing power more rapidly than the water powers down in Georgia under the wonderful management which we have there under private ownership; and the difference between the capital accounts is simply appalling. I look at the situation over the whole State of Georgia and I see companies, owning companies and leasing companies, and I see a capitalization being piled up against the State and against these properties of approximately \$175,000,000-plus and a development of horsepower in the State of Georgia of only 230,000 horsepower; and I see—if Mr. Beck was here he could confirm it—that in Canada they have developed 310,000 horsepower and they have spent only \$70,000,000 and they expect to develop by 1921, 750,000 horsepower and by that time their capital expenditures were to be in the neighborhood of \$110,000,000—if my memory is correct—approximately.

Therefore when a man speaks to me of the lack of initiative and going ahead I look at what those 225 towns have done up there. Then I go across to the situation in England; and this was the situation that I wished to call to your attention, because I have not seen it mentioned in any of the hearings, and certainly as often as England has been mentioned and the conditions over there, this thing has not been mentioned that I have seen.

Last year, 1918, there was a hearing of a committee of Parliament that I compare very much to this; only instead of making recommendations as to saving the whole situation they were appealed to by the body of representatives of the tramways of Great Britain to get an amendment of the law so that the board of trade in England would have the authority to raise the rates. Apparently there was some defect in the law from the standpoint of the tramways that the board of trade did not have the authority to raise the rates, and as an emergency proposition they appealed to Parliament.

Now this is what took place: The spokesman for the tramways of England, or representing himself as the spokesman of the tramways of England, said that he represented 80 corporations—and in England, as you know, the corporation means the city and not a corporation as we speak of it. When he presented his data to the committee of Parliament it was found that, instead of presenting the data with regard to 80 cities, he had presented the data with regard to only 5 cities, and a member of the committee asked him, "Well, you say you are representing 80 cities. Do you mean that

these 5 cities who are presenting their figures here are on a charitable expedition for the benefit of these others, that you have just volunteered this? Why are not the figures here with regard to these others?" He says, "Before we can pass on this situation we want the figures with regard to each of those 80 municipalities." And the figures were presented to that committee, and this developed—that out of 80 towns and cities operating their own tramways, in the middle of 1918 at the time of this great war stress, there were only 24 of those 80 who were then charging the maximum fare that was permitted to the tramways. All the others were charging below the maximum.

The CHAIRMAN. What is the maximum?

Mr. JACKSON. It was in the neighborhood of 2 cents, 2 or 3 cents; I do not recall accurately. It is about that.

Commissioner MEEKER. It varies from city to city?

Mr. JACKSON. It varies; yes, very much. Now, there were 44 of them who were charging the maximum on workmen's fares, which were less than the ordinary fares. Now, that is the situation with regard to the municipally operated tramway in the time of war stress in England at the very time this country is being harried to raise the rate.

When you come down to the facts, there are only these few cities appealing there in England, and back of them are a whole host of the privately operated companies, and this was the appeal of the privately operated company, and the spokesman for the tramways in London said in making this appeal—I do not quote his exact language—we wish (that is, the privately owned tramways wish) you to bear in mind that in raising our rates we wish to get a rate sufficient to make good our capital before the municipality takes it over, because that day is near. The few remaining roads——

The CHAIRMAN. Can you supply this commission with a copy of that report?

Mr. JACKSON. I could not, but you can get it at the Congressional Library, where I saw it.

The CHAIRMAN. Mr. Ogburn, will you see that the commission is furnished with a copy?

Commissioner GADSDEN. I think I can get a copy of it.

Mr. JACKSON. I wish to call attention that while these capital accounts have been going up in America, and while cities like Boston can not operate on a 10-cent fare—that simply staggers me when I hear it, I have profound respect for the men and the State, but when I am confronted with the fact that Boston can not operate on a 10-cent fare, and yet that the city of Glasgow can pay for its entire street-railway system, and I know that the trackage is not as great as in Boston, but that it can pay for its entire street-railway system, where during the last year 40 per cent of the travelers on that road paid a fare of only 1 cent—and I wish to call your attention to this with regard to Glasgow, that in the year 1915, in addition to their contribution to what was known as the common good, they paid to the dependents of their men serving in France \$400,000 and odd, and in the next year they paid \$450,000 to the dependents of their men serving in France, yet at the same time they wiped out the entire capital debt against that system.

Commissioner GADSDEN. Would it help you to understand the difference if you realized that at 60 cents an hour almost all the 5 cents goes to the motorman and conductor?

Mr. JACKSON. I appreciate that fact that there is a large difference.

Commissioner GADSDEN. Does not that help us to understand why they can not charge those cheap rates?

Mr. JACKSON. I do not expect to get a 1-cent rate in America.

Commissioner GADSDEN. Well, could you get 4 cents when nearly 5 cents goes to the platform men?

Mr. JACKSON. Well, I am confronted also with this fact—

Commissioner GADSDEN. That is a fact, or at least I am so advised.

Mr. JACKSON. I appreciate that, but I am also confronted by this fact, that in the city of San Francisco the wages are up and they are making money at a 5-cent fare, but in the city of Seattle—and this is one of the great troubles which was mentioned by Mr. Ainey this morning; my whole trip to Washington was repaid by having heard his testimony; while I did not agree with all he said, but the clearness and all—but one thing he said was with regard to publicity and getting proper facts before the public. Now, in our situation in Atlanta we have been agitating for some time there to get legislation to enable the municipality to do its own business. We were confronted with an advertisement from the Georgia Railway & Power Co., quoting from a paper—I think it is the Aera—in which the statement was made that the city of Seattle had taken over its street railways and that they had at once found out that they had to raise the fare to 6 cents. And another statement was that Seattle, instead of making money out there out of this situation, was losing money at the rate of forty to fifty thousand dollars or more per month.

Well, I and the gentlemen with whom I was associated were somewhat astounded at that and we wired out there to the superintendent of the roads, and we got back a wire that the city of Seattle had no idea of increasing its fare to 6 cents, that they were operating on the 5-cent fare with universal free transfers and that that would continue. That there was one small piece of road in the city that was still operated by a private corporation, and that that road had increased its fare to 6 cents but that the municipally operated road had no idea of increasing its fare. And I have not heard of an appraisal from out there.

I am also confronted with this fact—that Mr. Brooks, I think it is, the president of the street-railway companies in Detroit—I saw the published statement from him that if they were allowed to do away with the 3-cent fare in Detroit, that the companies out there could navigate at the 5-cent fare. And I have heard the evidence here that the fare at Cleveland has gone back to 5 cents and a little bit lower in some instances than 5 cents.

Therefore, I can not get through my own brain a clear-cut reason for the situation in Boston as compared with these places.

Now, I find with regard to all these cities in England—for instance, I have here the figures with regard to the Oldham Corporation tramways, where their capital expenditures in 1914 were £444,000; in 1915, £453,000; and in 1916, £460,000. Now, I find, going right alongside of that, that while those capital expenditures had increased over

there, the amount outstanding each year against the city is going down. The capital account outstanding against the Oldham Corporation in 1914 was £311,000; in 1915 it was £303,000; in 1916 it was £292,000. I am leaving off the odd pounds.

Take the city of Cardiff: The capital expenditures in 1915-16 in Cardiff were £813,000 and odd, an increase over 1914 of a few thousand pounds. In 1914, there were £811,000. In 1913 they were £786,000. And those were the total capital expenditures. When you come to the amount outstanding against the city in 1915-16, the amount outstanding is only £465,000 and odd. In 1914 it was £485,000. In 1913 it was £514,000. In other words, a steady reduction in the amount outstanding.

I find every one of those cities over there contributing to the relief of taxes. I find every one of them contributing to the benefit of those men who were serving at the front, and I find these capital accounts outstanding going down. Therefore, I turn back and I say there is the only solution of our problem.

Now, there has been mentioned here the Cleveland plan several times, and I wanted to call attention to the fact that the Cleveland plan was regarded as a makeshift by Mr. Johnson at the time it was put in, and it was put in force and effect because municipal ownership was not possible in Ohio at that time. And the evil of the plan, and the only evil that I can see, has developed here in the last few months, which will develop every time that you have private ownership. It would develop if I or any other man owned the road. That is, there comes a time where the owner of the capital invested in it wants increased return. And while it was organized back there on a basis of 6 per cent, this year they want 7 and next year they will be after more, and each year it will go on up.

The CHAIRMAN. Your solution of your own problem is municipal or State ownership?

Mr. JACKSON. Municipal ownership, and where the interurban proposition comes in, regulation by the railroad commission.

The CHAIRMAN. Under the constitution of Georgia is Atlanta permitted to engage in municipal ownership?

Mr. JACKSON. Not yet.

The CHAIRMAN. So there would have to be a constitutional amendment?

Mr. JACKSON. And there is one of my chief quarrels with the present owners.

The CHAIRMAN. Can you amend the constitution—

Mr. JACKSON. It is not the constitution. The charter forbids us. The charter does not permit us to own and operate our utilities.

The CHAIRMAN. Can that charter be changed by the consent of the city or does it require an act of the legislature?

Mr. JACKSON. No; it requires an act of the legislature. I am also attorney for the Municipal League of Georgia. I am not appearing for it here; but we have just gone through quite an experience there. The legislature has just adjourned, and we are endeavoring at present to get for all the cities of Georgia authority to operate their public utilities.

The CHAIRMAN. Was such a bill before the legislature?

Mr. JACKSON. Yes.

The CHAIRMAN. Did it succeed?

Mr. JACKSON. We have succeeded in getting it introduced and having a hearing before the judiciary committee, and the judiciary committee was almost unanimous in disapproving, for the reason that we have a local situation down there of the State against the towns, and it was very clearly demonstrated to the members of that judiciary committee that if that bill went through it meant that the city of Atlanta would gobble up all the water powers and street railways in Georgia.

The CHAIRMAN. When does the legislature convene again?

Mr. JACKSON. The legislature convenes in June or July of next year.

The CHAIRMAN. So nothing can be done until after that legislature meets?

Mr. JACKSON. Nothing can be done.

The CHAIRMAN. In the meantime, assume for the purpose of this inquiry that the industry or many of the companies are in serious difficulty, can we meet that difficulty simply by recommending municipal ownership or by doing something else?

Mr. JACKSON. I think Mr. Ainey was right in the statement that each of these localities has to be handled as a different proposition, and my main interest in appearing before you is to make only one plea—which is almost unnecessary: That the commission do not make such a general report that would be in any way used as a club at the next session of the legislature, not only Georgia but in other places, as an argument against municipal ownership. In other words, whether municipal ownership is put into force and effect or not, the finding of the National Civic Federation several years ago, when Mr. Clark signed a report—Mr. Clark who has figured in some of your hearings here, I think—

Commissioner GADSDEN. No; you have an entirely different man.

Mr. JACKSON. Well, it was a Mr. Clark who at that time was with the General Electric.

Commissioner GADSDEN. Oh, you mean the witness, W. J. Clark?

Mr. JACKSON. Yes; Mr. Clark, who was with the General Electric, was a member of that committee of which Mr. M. Ingalls was chairman; and that committee stated that subject all over this world, and while I do not believe they were in favor of municipal ownership, they stated one thing they were a unit on, and that was that every city should have the right to operate its public utilities, and that that right would probably insure better service on the part of the public-utility corporation.

The CHAIRMAN. I do not see how there can be any disagreement on that question.

Mr. JACKSON. I can not. But we have found disagreement, though, and I think that has been the universal experience—that wherever this question comes up to a legislature the privately owned corporation is there to try to block legislation, and that fight has to be met.

Commissioner GADSDEN. What about your constitutional debt limit in Atlanta? Have you enough credit to buy a property like this?

Mr. JACKSON. The constitution was fortunately amended last year in a way which gives a city of the size of Atlanta authority to issue

any amount of bonds practically, if it has the approval of the legislature and a certain percentage of the population votes for it.

Now, I would like to say this. I do not wish to represent that there is any wild outburst for municipal ownership in the city of Atlanta or the State of Georgia. I do wish to state this, though—that the city of Atlanta has twice voted in favor of municipal ownership of its public utilities—did you have a question of a correction, Mr. ARKWRIGHT?

MR. ARKWRIGHT. All of the public utilities?

MR. JACKSON. All public utilities.

MR. ARKWRIGHT. Are you not mistaken, Mr. Jackson?

MR. JACKSON. That is my information.

MR. ARKWRIGHT. Was it not the electric-light plant inside the city of Atlanta?

MR. JACKSON. No.

MR. ARKWRIGHT. Did they ever vote on municipal ownership of street railroads?

MR. JACKSON. I think on municipal ownership of public utilities, is my understanding.

MR. ARKWRIGHT. No; you are mistaken.

MR. JACKSON. Well, that is a difference as to memory, but this statement is unquestionably correct—that our present mayor, for whom I speak, was elected mayor of the city Atlanta on a straight platform of municipal ownership of street railways, electric lights, and all public utilities of the city.

THE CHAIRMAN. Is there any complaint of the service given by this company?

MR. JACKSON. They complain of the capitalization situation and the raise of rates.

THE CHAIRMAN. I am speaking now purely of service.

MR. JACKSON. Can you divorce service from the charge that they take out of a man's pocket?

THE CHAIRMAN. We generally differentiate a rate from a service.

MR. JACKSON. Well, I think we have a far better service in Atlanta than you have in Washington.

THE CHAIRMAN. The main criticism, if I understand you right, grows out of the belief that there is water in the stock and the mounting capitalization, with the natural result that you can not get reduced rates.

MR. JACKSON. And that under their issues of bonds, as they are issued at present, it is impossible for them to navigate continuously without rates going up.

THE CHAIRMAN. Could a large part of this public grievance be cared for if the public-service commission would make a fair valuation of that plant and a very careful examination of the accounts to determine the original cost of that property?

MR. JACKSON. Mr. Commissioner, I do not think that it could ever possibly settle it, for the simple reason that one of the few things that I have differed from some suggestions that I have heard here was in your definition of public utilities on yesterday, in which you included packers and manufacturers and other things. I do not understand by public utilities that those things are included.

THE CHAIRMAN. They are not, but they may be.

Mr. JACKSON. I know they may be, but a public utility, to my understanding, a private public utility is a private corporation that is carrying on really a government function, the maintenance of a highway or the maintenance of the light—

The CHAIRMAN. We will not argue over the terms.

Mr. JACKSON. I know, but Mr. MacFarland—I might, if I started out here and go back even further—could state that King Hezekiah started a waterworks system for Jerusalem, and it came on down. But the evil that he mentions, of turning over a function of government to a private corporation can not possibly be eradicated, however high-minded the gentlemen who may serve on a commission may be, because you can not possibly keep the peace between the private corporation and the city. It is inevitable that there will be a constant clash of interests.

Commissioner SWEET. If you could find a way to value the property of the street-railway company by itself separate from everything else, that would be so fair and just that the people of Atlanta were convinced that the physical value of the property was there and that a reasonable return allowed upon that value in addition to the operating expenses and so forth, with the good service that you are getting, could you possibly expect under municipal ownership anything better in regard to rates or service?

Mr. JACKSON. It is an impossible thing for me—

Commissioner SWEET. No; do not say it is impossible. It is a supposititious case on my part. I am saying that if the valuation could be determined on such a fair basis that the people of Atlanta would admit its justice and fairness, separate from the light and power and all these other companies, and then a reasonable return allowed upon that valuation with the good service you say you are getting and the rate that that would give—could the people of Atlanta ask for anything better than that under municipal ownership or anything else?

Mr. JACKSON. Providing that you would change human nature that would be all right, but I am simply putting myself in the position of the owner of the public utility. The time would come when I would see everything else going up and I would want to see my income from my property going up, and I would forget all about the fact that this was not my property individually; I would forget that it was the property of the people that had only been intrusted to me for a time; and I would try to get the largest return on my dollar that I possibly could. And I do not believe that the constitution of the average man is different from that. Then, on the other hand, the resident of the city is always wanting to bring down his rate so long as he is human. The minute you put in his hands where it is his own business, then you do that—you remove the fight.

Commissioner SWEET. You do not answer my question. I asked you if you or any citizen could reasonably expect any better result than that? You say the management is capable and is giving you good service and you are getting better results than we are here in Washington; that the service is all right. Now, then, if you figured the investment at what it ought to be figured at, its real valuation, squeezing all the water and everything that ought not to be there out, you will admit that under municipal administration or operation if

that precise valuation were found that the same thing would have to be done unless you resorted to taxation to make up a deficit?

Mr. JACKSON. Excepting this—that the municipality can always borrow money at less than the private corporation. In other words, a privately run and operated—

Commissioner SWEET. Then the advantage that you see in municipal operation would be first, I take it; now, the sentiment, a sort of sentiment on the part of the people that has nothing to do with realities?

Mr. JACKSON. No.

Commissioner SWEET. Well, you mentioned it first a while ago.

Mr. JACKSON. I should put it purely as a question of cost and that the—

Commissioner SWEET. Very well. It would simply be that, instead of paying 6 per cent on the investment or whatever would be paid on the bonds of a private corporation, the difference in favor of municipal ownership and operation would be the difference between that advantage and whatever the city would have to pay if it made the loan?

Mr. JACKSON. Yes. May I call your attention right there though to the difference that a cent makes? For instance, the raise of 1 cent in the street-railway fares in Atlanta, if the same number of passengers travel these roads this year that traveled them last year and pay that 6 cents that paid the 5-cent fare last year, that 1 cent puts an additional tax on the city of \$700,000. In 30 years' time, the life of a bond, that interest compounded at 5 per cent will amount to approximately \$49,000,000 out of that 1-cent raise in fare. That \$49,000,000 is \$10,000,000 more than the railroad commission says that the whole street-railway system and power company and all are worth to-day. Therefore a difference of 1 cent, when you figure it up in the aggregate, amounts to considerable.

Commissioner SWEET. If your argument is sound, and if cities ought to own and operate their street-railway systems because they can borrow money at a lower rate of interest than private corporations can, why would it not be wise for cities to also raise money to go into the banking business and loan out money to private individuals at a lower rate than they can get it for otherwise?

Commissioner GADSDEN. They do that in North Dakota.

Mr. JACKSON. They are doing it in North Dakota.

Commissioner GADSDEN. Would you recommend that for Georgia?

Mr. JACKSON. Not to-day; no. As to what we will come to ultimately I will not undertake to say. But the thing that I stand for to-day is the taking out of private hands the operation of things which belong strictly to the government. It has nothing to do with the packing business nor has it anything to do, in my judgment, with the banking business or sale of dry goods. That is an altogether different question, which opens up a large field that I would not undertake to try to settle.

Commissioner SWEET. I want to say, Mr. Jackson, I am not opposed to the right of a city to own its street railways under proper conditions, possibly, and operate them. I do not know. I am not asking you the question, and I have not asked you the question yet, because I am opposed to your principle of municipal ownership

or operation, but I do not think that your argument, which is apparently based upon a condition in Atlanta and part of Georgia, that does, we must admit, prevail, or at least has counterpart in many other parts of the country—I do not think that that necessarily makes out a case. I think that municipal ownership may be sustained upon other grounds, but I do not believe that the evils that have arisen through watered stock and a whole lot of complications arising from leases such as you mentioned, and all that sort of thing—it emphasizes, perhaps, an evil which has existed in the country, but I do not think it is a necessary evil, and I do not think it is as large an evil to-day as it was 10 or 15 years ago; and I think that the valuation of the property upon the proper basis would, for the future, eliminate the difficulties that you find arising from this old situation.

Mr. JACKSON. Now, Mr. Commissioner, may I just answer that suggestion with this? You speak of my arguing simply from the situation in Atlanta. Now, I wish to call your attention to this, that I look at the situation in Atlanta and I am honest in my statement that I think for private operation we are well off in the management and the way in which it is being done, so far as private ownership is concerned. But when I take the situation in Atlanta, under the management of men in whom I have confidence, and look at the fact that I am paying more for my street railway there than I would be paying in Seattle, than I would be paying in any of these cities abroad, and when I look at the fact that while these cities abroad—Sir Eric Geddes, in introducing his bill for the Government, called attention to the fact that the only transportation companies in England that were making good and did not need to be worried about by the Government were those that were operated by municipalities—

Commissioner SWEET. Let me call your attention—

Mr. JACKSON. Just let me finish there, if I may—and then I come to the difference in the rates for current and find 1,853 cities operating their own power plants and I find these cities everywhere in the same class with Atlanta, where the municipal plant is operated, enjoying rates at about one-half—or not one-half, but rates much less than the Atlanta rate—then I think that I am arguing from a pretty good series of facts.

Commissioner SWEET. Is not your higher rate paid in Atlanta simply and solely because you are seeking to pay now—you are paying in fact—upon a valuation that is materially higher than the actual value of the property?

Mr. JACKSON. That is possibly true—

Commissioner SWEET. Now, then, you say there is a difficulty in getting at the actual value of the property, but if you resort to municipal ownership you have to get that valuation, do you not?

Mr. JACKSON. Ultimately; yes.

Commissioner SWEET. Very well. Now, it seems to me if you wanted to retain private ownership you could resort to the same method and find your valuation, and then the evil that you complain of would be wiped away.

The CHAIRMAN. May I suggest, Mr. Jackson, that you make your answer brief, because we have some further business to-night.

Commissioner SWEET. I do not want to follow it up, but I wanted to present that phase of it.

Mr. JACKSON. I have finished, Mr. Commissioner, so far as I am concerned.

Commissioner SWEET. I have finished.

(Witness excused.)

Mr. WARREN. I fear the commission will hate the sight of a Boston man as well as the mention of Boston, but we have some things that I want to put in, and if the commission will bear with me for 10 or 15 minutes I would like to file certain exhibits asked for at the previous hearings. Shall I leave them right on this table? There are 10 copies of each. I would like to mention what they are for the purpose of the record.

The first one, which I think is something which the commission asked us for at the other hearings, is a summary of the cities in which fares have been increased, showing the name of the city, population, company operated, date of increase, present and former rate revised August 9, 1919. It is prepared by the American Electric Railway Association. And I might mention incidentally that I notice Seattle, which was just mentioned, is paying a 6-cent fare.

The next statement, also prepared by the same association under date of August 9, 1919, is effect of increased rates of fare on passenger revenues and tabulation of 125 companies, showing comparison on monthly basis at theoretical or actual percentage increase in passenger revenues. Those companies are believed by the association to be typical. I should like to say regarding them, in looking at the figures, I hope the commission will bear in mind certain extraordinary periods of time in the period covered by these reports. Some of them are for a few months, some of them for longer periods. The first company here happens to be the Boston Elevated, and under the 7-cent fare in October their revenue gain was only 2.91 per cent. That was the month of the influenza, for example, and there are other special matters of that kind which it will be necessary to keep in mind.

It may interest the commission to know that on the 8-cent fare the seven months' average on the Boston Elevated showed an increase of 43.34 per cent.

Commissioner MEEKER. That is an increase over the 5 cents?

Mr. WARREN. Over the 5 cents, over the year before. In other words, on a theoretical 60 per cent increase, over two-thirds was saved.

The next exhibit is one entitled "Confidential information concerning wages of trainmen. Supplement to edition No. 2 of bulletin No. 121." Dated August 11, 1919.

That is confidential in the sense that it is obtained by the association for the confidential use of the members; but they are perfectly willing to file it here. It happens to be the way it is prepared and entitled.

Commissioner GADSDEN. There is very little secrecy nowadays about the wage scale paid?

Mr. WARREN. Yes; I did not want to make you think that we were putting it in as if it were confidential.

The next statement is a tabulation showing wages demanded by trainmen during the spring and summer of 1919; and whether that

shows all the demands may be doubtful, because the demands grow with the rapidity of mushrooms; but it shows many of them and bears upon the labor question.

These are all prepared by the American Electric Railway Association.

The next shows the distribution of securities of electric railways, based on replies to data sheet No. 192, sent out by the American Electric Railway Association July 17, 1919.

I would like to read the summary, because it is very brief:

1. Twenty-seven companies report 4,665,462 shares of stock outstanding, held by 30,492 individuals, or an average of 153 shares to each holder.

2. Ninety-eight companies report \$440,867,735.80 worth of stock, par value, outstanding held by 32,788 individuals, or an average of 13,446 of stock to each holder.

3. Forty-nine companies report \$240,347,825 in bonds outstanding held by 448,475 individuals, an average of \$535.92 to each holder.

We could not get this data from a great many companies. We got it from such companies as we could get it readily, after your request was made for the information.

Commissioner MEEKER. The exhibit shows the distribution of holdings, does it, by the number who held one share, two shares, etc.?

Mr. WARREN. No; it does not, sir. I think that exhibit shows only what I read; but here is one that shows a little more:

* Distribution of the capital stock of 11 electric railways among men, women, and fiduciary institutions, showing the number of shareholders and the number of shares held in each class.

I will read one company to indicate what it shows:

Commonwealth Power, Railway & Light Co.: Common stock, 1,475 men holders; number of shares held, 83,339; preferred stock, 1,657 holders; number of shares held, 92,818.

And, then, the same for women, the same for fiduciary institutions, and the total of that company.

And the footing at the bottom of the page shows 11,324 men, 10,941 women, 1,686 fiduciary institutions; in all, 23,952 holders, and 1,273,870 shares, and the average number of shares of each stockholder, etc.

The last one of these exhibits is a comparison of valuation and capitalization of 26 electric railways, based upon letters to the American Electric Railway Association and records of valuation and fare cases, August 11, 1919; the total of the 26 companies operating 7,221 miles of track showed a valuation of \$779,772,472, or in round numbers almost \$780,000,000. The capitalization represented a total of \$864,102,936.

The ratio of capitalization to valuation was 110.8.

In other words, the capitalization exceeded the valuation by between 10 and 11 per cent.

Commissioner GADSDEN. I imagine that is valuation less depreciation, too; is it not?

Mr. WARREN. I think so. I think these are all official valuations.

Commissioner GADSDEN. Depreciated value?

Mr. WARREN. I think so. I have not the details in all cases.

Some of the valuations exceed the capitalization and some are below. The average per mile of single track, the valuation was \$107,985, and the capitalization was \$119,663.

In that list the only one I wanted to call attention to is the Georgia Railway & Electric Co. of Atlanta, Ga. The valuation as here given is \$25,000,000, and the capitalization as here given is \$24,441,600.

I happen to have a copy which Mr. Ogburn has furnished me, of the opinion of the Railroad Commission of Georgia in which both the chairman and the vice chairman, Hon. Charles Murphy Candler, chairman, and George Hillyer, vice chairman, are, I think, citizens of Atlanta.

There are only two or three paragraphs that I want to read:

The commission is abundantly satisfied that it can, without difficulty, arrive at a very conservative estimate of the minimum value of the property of this company in the public use. The company may complain at our use of a minimum value, rather than the fair value, but certainly the public can not. Such value may be estimated by some of the methods approved by the Supreme Court of the United States and we, of course, are not confined in such an inquiry to the one method of estimated reproduction new and depreciated.

And regarding the figure which is given in our tabulation, the commission said:

We have estimated the naked physical properties of the Georgia Railway & Electric Co. as of a minimum value of \$18,602,895 to which adding \$3,500,000 for the Atlanta Gas Light Co., and \$500,000 for the Atlanta Northern Railway Co., we have \$22,602,895 as the minimum value of the physical properties leased to the Georgia Railway & Power Co. In addition, \$465,678 of other assets were turned over with the leased physical properties, making, in all, \$23,068,573. If there be recognized any additional value in the properties for unification and adaption and for franchises for which the public made or makes charges, the value of these leased properties at this time can hardly be less than \$25,000,000. A net rental therefore of \$1,605,572, or 6.42 per cent, in our opinion is not unreasonable, considering the character of the business and properties and the many contingencies which may materially affect earnings.

On the question of labor, I referred the other day to some figures of the Boston Elevated, and I would like to put these in, because I think they are authentic statements. At any rate Mr. Barnham, counsel for the trustees, and formerly assistant attorney general, kindly furnished them to me.

The first is one of the nickel diagrams, with which the commissioners are familiar, for the month of December, 1917, in which is the statement that the operating expenses took 3.607 cents of each nickel, of which wages were 2.21 cents.

Then here is the monthly statement of receipts and cost of service for June, 1919. At that time the company was operating on the 48-cent rate for trainmen, conductors, and motormen. The total operating expenses for June were \$2,173,961, of which \$1,282,499.03 was wages—more than half.

Then, in the cost of service, at the bottom of the statement, appears this recital:

"Cost of service per revenue passenger, 10.065 cents, of which labor costs 4.518 cents," or a little over 4½ cents.

The CHAIRMAN. Does that include capital charges in that cost of service there?

Mr. WARREN. Yes; it does.

The net loss for the month was \$535,000.

I think it is true that all the capital charges on the bonds of the leased road, the bonds of the Boston Elevated, and the stock of the Boston Elevated might be omitted and there would still be a loss.

It is fair to say about that two things: First, that in the month of June the company was doing, as has been testified here by some of the Boston witnesses, more track work than would be normally done in an average month; and, of course, that would swell to some extent the pay rolls.

It also should be called to your attention that there was some loss of traffic in June as compared with June of the previous year, as is shown by the figures I referred to where, with theoretically a 60 per cent increase of income, the actual increase was something like 46 or 43. That might reduce that cost in cents per passenger somewhat, in comparing it with the previous month in 1917—December.

As against that, however, the arbitration award on the wages has been made since this return was made, and figures about, as I understand from Mr. Barnham, 20 per cent increase on the entire pay roll; and I know that it represented exactly 25 per cent on the carmen, because it went up from 48 to 60 cents. That would a good deal more than offset any deduction that should be made from this 4½ cents.

There is another thing that I would like to call to your attention, because I feel as if the evidence may not have emphasized it as concretely and consecutively as should be, and that is the tremendous significance of this labor element in the increased cost and the very embarrassed situation of these companies.

There is a statement here of the trustees of receipts and cost of service for 12 months ending June 30, last. That is the first year of the public control. It gives the total operating expense as something over \$22,000,000—\$22,362,171—of which \$13,551,681 was wages; that is, over thirteen and a half million dollars.

With that is a statement prepared by the trustees showing the total income and the total operating expense for each year since the company began operation in 1897.

Two years ago, or 1917, the entire operating expenses of the Boston Elevated system were \$13,547,124, or a little less than the pay roll alone in the 12 months ending June 30.

Those I should like to file.

The CHAIRMAN. Very well. That may be done.

Mr. WARREN. There is just one other thing, and I will start to go back to Boston.

San Francisco has been referred to, and I have here two certified copies of two documents of the city of San Francisco. I should like to read one, which is not very long, although I should like to file both, because the other is referred to in this and is the basis for this.

The CHAIRMAN. Suppose you just hand to the reporter the matter which you desire to have put in the record.

Mr. WARREN. It is as follows:

REPORT OF MUNICIPAL RAILWAY DEPRECIATION.

REPORT OF FINANCE COMMITTEE ON DEPRECIATION FUND OF MUNICIPAL RAILWAY.

SAN FRANCISCO, July 21, 1919

BOARD OF SUPERVISORS.

GENTLEMEN: The finance committee has on the calendar to-day a resolution transferring \$10,247 from the depreciation fund of the Municipal Railway to the Municipal Railway fund, which the board of public works will cover the increase in wages for July of employees of the railroad, making their wages \$5 per day.

In the judgment of the committee it will be most unwise to attempt a reduction of the 18 per cent of gross revenue set aside for depreciation. As a matter of fact, a study of this problem and comparison with reports of other cities indicate that the depreciation percentage should be raised instead of lowered. This statement is substantiated by a very complete report presented by the city engineer, which is attached to and made a part of this report.

To meet the extraordinary charges now being imposed upon the Municipal Railway it will be necessary for the board of public works and the superintendent of the Municipal Railway to inaugurate most rigid economies in operating expenses and wherever possible eliminate excess service. The committee is advised that some economies may be made without impairment of the excellent service being given by the Municipal Railway. These economies may bring about partial restoration of the financial balance which makes for the profitable operation of our municipal street railway.

After a very thorough investigation the committee believes that the true solution is an increase in street-car fare to 6 cents or more, but does not recommend that such action be taken at this time for this reason:

Increase in street-car fare can only be successfully installed after education of the public.

The committee has before it reports from other cities where fares have been increased in some instances as high as 10 cents, as in Boston. Other cities have increased to 6, 7, and 8 cents. It is a question that should be brought to the attention of the public, and when the cost of labor, material, and all necessities of life is doubled and trebled there is no reason why street-car fares should not be raised proportionately.

To continue the \$5-a-day wage on the railroad the committee will from time to time recommend to this board transfers from the depreciation fund of a sufficient amount to meet the pay rolls. A 3 per cent reduction of the present 18 per cent would not be sufficient to meet the increase which has been granted.

The attention of the board of supervisors, board of public works, and the public is directed to the questions of extensions of the Municipal Railway, and under existing financial conditions it is certain there can be no further extensions of the Municipal Railway financed out of revenues. Future extensions can only be made by a bond issue or by some method of financing other than from revenue. And unless there is a marked increase in revenue, in all probability the board of supervisors will be compelled in future years to provide for bond interest and redemption in whole or in part from the annual tax levy.

Respectfully submitted.

RALPH MCLEARN,
J. C. KORTICK,
F. SUHR, Jr.,
Finance Committee.

REPORT OF CITY ENGINEER ON DEPRECIATION FUND, MUNICIPAL RAILWAY.

SAN FRANCISCO, July 19, 1919.

To the finance committee, board of supervisors, San Francisco.

GENTLEMEN: In accordance with resolution passed by the board of supervisors, I beg leave to submit the following statement with relation to the depreciation fund being set aside from the gross earnings of the Municipal Railway of this city:

Before proceeding with the actual figures I would take this opportunity to state the purpose of the depreciation fund.

Every portion of railway plant or equipment is either worn out, lost, or becomes so old as to be unsatisfactory for use, and will have to be replaced at some future time if the service which it has been giving is to be continued. All of you can remember the types of cars which were operated in San Francisco 10 years ago, 20 years ago, and possibly longer. You do not see this class of equipment to-day, as it has been retired and new cars purchased and placed in service to take the place of the older vehicle.

Likewise, the existing tracks are not those of 20 years ago; trolley wire is changed from time to time.

Further than that, the systems have changed; the old horse cars had to give way to the cable cars, and the cable cars have largely had to make room for the electric cars. The electric cars may in their turn be replaced with something more efficient.

To replace these cars, tracks, and systems has cost money, and funds are necessary in order to continue the high-class operation of any service-giving enterprise for any considerable length of time. To be a successful enterprise it must supply its own funds for such purposes.

Every farseeing financier has been careful to make some such provision in a prudent handling of either corporate or public-service properties. The necessity for a depreciation fund is recognized by all of the State public-service commissions of the country and the United States Government. At the time that the Municipal Railway of San Francisco was placed in service it was determined that a depreciation reserve would be established. There was some discussion as to the best way of arriving at the amount which should be set aside, and after much careful deliberation it was determined to set aside 14 per cent of gross receipts for depreciation of property investment and 4 per cent of gross receipts for accidents and damages, making a total of 18 per cent for both purposes. The question at the present time is: Can the amount which is annually being set aside be consistently reduced?

In order to answer this, I have not only studied our own problem but have carefully investigated what is being done by other railways in the United States, and set forth the following data:

Very complete reports from the public-service commission for the first district of New York are before me. These reports indicate several different ways of arriving at the amount of the depreciation reserve. The Interborough Rapid Transit Co. has been setting aside funds on the basis of so many cents per revenue car-mile operated. One road has been setting aside a fixed percentage of the operating revenue. A number of the others have figured on a percentage of the gross revenue; some have taken annually a certain percentage of the cost of the property, and another a fixed annual sum. Those using a percentage of the transportation revenue or of the total revenue, as it is classed in our accounting, include the Brooklyn Heights; Brooklyn, Queens County & Suburban; Coney Island & Brooklyn; Coney Island & Gravesend; Nassau Electric; and the New York Railways. The minimum percentage set aside by any of these is by the Coney Island & Brooklyn, which sets aside 20 per cent. The Brooklyn, Queens County & Suburban sets aside 22.75 per cent.

The roads which set aside their depreciation fund on the basis of cents per revenue car-mile are six in number, and the amounts vary from 3.5 cents to 9 cents per revenue car-mile. Only one of the roads has the former sum, the next lowest road setting aside 5 cents, the next after that 5.66 cents, following which one road sets aside 6½ cents and two 9 cents per revenue car-mile.

During the year ending June 30, 1918, the 14 per cent of passenger receipts set aside by the Municipal Railway amounted to \$330,367.05. During the same period the Municipal Railway operated 6,935,000 passenger car-miles. This, figured on even the basis of 5½ cents per car-mile, would produce the figure of \$351,429.95, as compared with the \$330,367.05 produced by the present method.

The city of Cleveland in 1911 set aside for its renewal fund, during six months of the year, 4 cents per car-mile; during one month, 5 cents; and for the remaining five months of the year, 6 cents per car-mile. In a report issued in 1913, it was stated that the amounts which had been set aside were not sufficient to care for the road properly. This necessitated an increase in the amount annually allotted to depreciation reserve.

In Chicago, under the resettlement plan, 8 per cent of the gross receipts have been turned into the depreciation fund. That this has not proven sufficient is evinced by the following quotation from the publication of the Chicago Municipal Ownership League, dated April, 1919:

"Regardless of what decision may be eventually reached in reference to the purchase of the property now, in the future, the city council and the board of supervising engineers should at once change the basis of depreciation reserve requirements from 8 per cent to at least 20 per cent of the gross earnings, so as to reestablish the integrity of the property value as nearly as may be. The present requirement of 8 per cent of the gross earnings is totally inadequate. The true basis of depreciation reserve should not be less than 5 per cent per annum on the cost value of the property. The depreciation reserve now falls short of meeting the requirements of honest conservative financing by about \$5,000,000 a year. The total deficiency is now not far from \$70,000,000."

In Table 5, on page 75, of the Annual Report of the Bureau of Engineering for the year ending June 30, 1918, will be found a summary of the capital expenditures made on the property of the railway. This shows a total investment

of \$6,251,400.53. The matter of valuing street railways for both rate fixing and sale purposes has been very carefully gone into, and there is much information on the subject. The Boston Transit Commission, the New York Public Service Commission, the Wisconsin Public Service Commission, the United States Government, and many engineers of high standing have reported on the subject of values. Such reports always include a depreciation table for the purpose of arriving at the present value of the property. All of these men have not agreed on the probable life of the parts of a railway. There are, however, sufficient reports which are fairly well agreed to make it possible to state quite positively what may be expected from the various classes of construction. For instance, railway-shop tools and equipment may reasonably be expected to have a life of between 13 and 14 years. This would mean that if we were to consider establishing a fund which would replace this equipment it would be necessary to set aside $7\frac{1}{2}$ per cent of the original investment each year. As the amount of money involved in the shop equipment is \$31,190.53, this percentage would be \$2,339.29 annually. All of the items entering into the make-up of the system, when similarly treated, indicate that the sum of \$383,138.71 should annually be set aside to replace the present plan and equipment at the end of its normal useful life.

These figures do not take into consideration the matter of obsolescence or, in other words, the chances that some of the material will have to be replaced before it is actually worn out, on account of the development of a more satisfactory type of material, because, as in the case of our cars, they become so old-fashioned and out of date that they will no longer be satisfactory. For this reason I have not added to the above figures the interest which might accrue on the funds thus set aside.

You will please note that this figure, \$383,138, is more by \$52,370 than the \$330,767 which was set aside last year. This means that the 1917-18 reserve was but $86\frac{1}{2}$ per cent of the amount which might properly have been placed in reserve.

In this connection I would like to call your attention to the rapid rate at which the cost of material is rising. In 1914 we purchased cross-ties for the various lines built during that year for 58 cents apiece. Recently we have had to pay $91\frac{1}{2}$ cents for the same material. The trolley wire on the original Geary Street Railway cost less than 15 cents per pound. We have recently had to pay over 33 cents for this same material. Rail, which cost \$41.65 per ton in 1914, cost \$122.10 per ton in February of this year. Track bolts, which cost \$2.10, are now \$8.50. Track special work, which is no small part of the cost of the installation of the Municipal Railway, has also made a considerable advance. The unit of a right-angle crossing is now worth \$416, whereas when they were originally purchased the price was \$132. Standard switches, which originally cost \$171, now cost \$404.

None of us can tell what the prices will be at the time it is necessary to replace the present construction. Judging the future by the past, we can predict that rails to replace the present ones will be considerably higher than they were when the track was first built.

Labor, which enters very largely into the cost of constructing a railway, has very materially increased, as you know. Therefore, when the time comes to replace the existing construction it will not only be necessary to pay out the original cost of construction, but also enough more money to equal the advanced costs.

The Municipal Railway at the present time has a very enviable reputation. Its track is good and its cars are new. It depends very largely on the depreciation fund as to whether, after a few years of operation, the track is allowed to run down and the cars are not replaced with new and up-to-date equipment. If the Municipal Railway does not earn and place aside the money necessary to keep up its roadbed and cars, the public at large can truthfully say that the undertaking of municipal ownership in San Francisco has been a failure.

The question of meeting the increased cost of operation has been confronting all of the street railways in the United States. In every case, rather than cut into the depreciation reserve fund, the fare has been increased. Increases in fare in various cities in the United States have been from 5 cents to 6 cents or upward. The fare on the street railways in Pittsburgh has for some time past been 10 cents and Boston is just now going to the 10-cent fare. The Boston roads are under public control, the stockholders having nothing whatever to say in regard to the operation of the road and the amount of fare charged. A sum in excess of \$2,000,000 is the annual amount set aside for

depreciation. This reserve is based upon independent expert opinion as to what should be set aside yearly in order to provide for renewals and replacements as necessity arises. Since the first of the year one-half cent per passenger has been set aside. This same one-half cent, if applied to the number of passengers carried by the Municipal Railroad, whose density of travel is not nearly so great, would have produced \$312,000 in 1917-18. Neither labor nor material necessary to make replacements is as expensive in Boston as in San Francisco.

I believe the foregoing furnishes sufficient data to indicate the grave responsibility which would have to be assumed in reducing the amount annually set aside for depreciation. However, it is a matter of public policy which your board will have to decide under the abnormal social and industrial conditions following the five years of European war.

Respectfully,

W. M. O'SHAUGHNESSY, *City Engineer.*

Total receipts, six months, January 1 to June 30, 1919-----	\$1, 253, 759. 20
Total expenditures, January 1 to June 30, 1919 (June approximated)-----	864, 978. 20
Excess of receipts over expenditures-----	388, 781. 00
Depreciation fund, 18 per cent of gross passenger revenue-----	\$223, 984. 49
Injury insurance fund, liability compensation-----	12, 741. 98
Interest on outstanding bonds-----	121, 524. 18
	358, 250. 65
Net credit to Municipal Railway fund six months, to July 30, 1919-----	30, 530. 35

Mr. WARREN. The report of the engineer referred to in that states that the depreciation charge is not, in his opinion, large enough. This report is considering a transfer of \$10,000 from the depreciation fund which Mr. O'Shaughnessy, the engineer, thought was not large enough. This transfer, in order to meet the wages for July, which have been made \$5 a day—

Commissioner MEEKER. This is the municipally operated railway?

Mr. WARREN. Yes.

Commissioner SWEET. Is that the report of the committee of the legislative body?

Mr. WARREN. It is the report of the finance committee on depreciation fund of the Municipal Railway. There are three signatures, and it is called the finance committee. It is certified by the clerk of the board of supervisors, city and county of San Francisco.

I want to file two other papers here, which I think were asked for but which I will not read. One is several copies of income statements of certain companies controlled by the American Railways Co., and testified to by Mr. Tingley at the previous hearings, and one of the members of the commission asked for these income statements. I think there are five of each, which I will file.

The other is a statement of J. E. Emery, submitted to the Federal Electric Railway Commission July 25, 1919, and it is an analysis of the income accounts.

The CHAIRMAN. These may be filed.

Mr. WARREN. I think that is all.

The CHAIRMAN. Mr. Ogburn, have you any remarks to make?

Mr. OGBURN. Just this: Mr. Jackson's testimony concluded the evidence submitted on behalf of the representatives of the public.

When this special session was announced, it was known—we let it be known—that any representative of the public or of any municipality who cared to present his views would be invited and be welcomed here.

In addition to that, I sent a letter to every State public-utility commissioner in the United States inviting him to come, and to the mayors of a number of cities.

The owners have been heard; the public has been heard; and the third interested party, labor, as you know, has asked to be heard, in response, really, to our invitation, to the Amalgamated Association of Street and Electric Railway Employees of America, whose president, Mr. Mahon, is a member of this commission; and they have stated that they would like to present a program as a contribution to the study being made by this commission, and that they would like for this commission, if it can, sometime during the month of September, to hear the counselors and the economists who will present that program.

The CHAIRMAN. On that point, Mr. Ogburn, will you communicate with Mr. Mahon, or those who have that program in charge, and ascertain what part of September will be agreeable to them?

Mr. OGBURN. Yes; I will. They have already indicated that they would like as much time as possible, because they are preparing a brief but a very thorough program.

In connection with the labor situation, in view of the fact that a good deal of testimony presented before this commission has dealt with the increase in wages awarded by a national body, a national commission, for this record I would like to have it shown that the war-time scale established by that national labor board, which was 48 cents maximum in the larger cities, has this week been still further increased by a revision of awards in eight companies, by the National War Labor Board itself—the increase being a flat 12 per cent increase over the wages awarded one year ago; that 12 per cent being based largely, if not altogether, on the increase in the cost of living.

In addition to that, in several other cities, private boards of arbitration and the companies themselves, through negotiation, have increased the 48-cent scale, or scale established by the War Labor Board, by as much as 25 to 35 per cent.

So that those increases should be shown, I think, in the record we are now making.

The CHAIRMAN. What maximum scale is established by this recent increase of the National War Labor Board?

Mr. OGBURN. The highest established is 54 cents, in the city of Pittsburgh.

I would like to say there that a very peculiar situation existed in the submission—that the receiver of the company, under the order of the court, made a conditional submission that the receiver would not accept the award of the board if it were not satisfactory; and the men—since one party agreed not to accept it—likewise reserved the same right to reject it if it were not satisfactory; and since it was made, a maximum of 54 cents being established, the men have rejected the award, as they reserved the right to do, and last night they went out on strike.

Mr. WARREN. As they have in East St. Louis, I hear.

Mr. OGBURN. I do not know.

Mr. WARREN. There is one other thing that I forgot.

The December, 1918, Aera contained the Oakland resettlement ordinance, which, I think, was referred to by Mr. Creed, the attor-

ney of some of the companies in Oakland, on San Francisco Bay. That company would like to have copies of this magazine filed with the commission that you might see the outline of that ordinance. I will file this as an evidence of good faith, and send Mr. Ogburn additional copies.

The CHAIRMAN. If there are no further witnesses, renewing our apology of the first day for these extended and strenuous sessions, the commission will stand adjourned sine die.

(Whereupon, an adjournment was taken sine die.)

WASHINGTON, D. C., *September 29, 1919.*

The commission met pursuant to notice in the Interstate Commerce Commission hearing room at 10 a. m.

Present: Parties as before.

The CHAIRMAN. Gentlemen, the commission is advised that there are a large number of witnesses who desire to be heard this week, and unless further notice is received, we will continue the usual modest working hours, from 10 o'clock in the morning until 10 o'clock at night.

Who is your first witness, Mr. Ogburn?

Mr. OGBURN. The first witness is Mr. Joyce, representing Mr. Mitten, of the Philadelphia Rapid Transit Co.

STATEMENT OF MR. C. J. JOYCE.

The CHAIRMAN. You may proceed, Mr. Joyce.

Mr. JOYCE. I am here in the capacity of representative of Mr. T. E. Mitten, president and chairman of the executive committee of the Philadelphia Rapid Transit Co.

I have here a formal statement addressed by Mr. Mitten to the commission and, with your indulgence, I shall read it. After reading this statement I shall supplement it with such additional data as seemed to me to be of interest to the commission, and I shall be ready to supply other data as the commission may ask for it, either now, if I have the data with me, or later by mail to the secretary.

This is addressed to Hon. Charles E. Elmquist, chairman:

Your request that I give information relative to the Philadelphia solution of the traction question has been received.

In compliance therewith there is now in immediate preparation, under my instructions, a condensed review of the Philadelphia traction story, in which is being included, for your information, summaries and extracts from the original papers and statements that we have printed along the way. It may be you will desire to make this forthcoming word picture a part of your records.

Pending its completion, I am sending this brief forecast of what the finished story will show.

1. RESULTS SECURED UNDER COOPERATIVE PLAN, 1911-1919.

A. Eight months' report of operation, January-August, 1919, just issued, showing proportionate amount of all yearly charges and the 5 per cent dividend earned with a continued 5-cent fare; operating ratio (excluding taxes) 61.79 per cent.

B. Eight-year report for period ending December 3, 1918, showing as it does, the result of cooperative effort. Public patronage increased from 288 to over

400 rides per capita since 1910. Fares decreased from average of 4.13 cents to 3.98 cents per passenger. Car equipment modernized and service much improved. Wages increased 154 per cent from average of \$622 to \$1,589 per annum. Collective bargaining and cooperative welfare established with protection of \$1,000 life insurance to every employee. Transformation of the inherited 1910 deficit of \$318,006 into a surplus of \$4,482,119 in 1918, \$3,597,578 in addition being meanwhile paid to Philadelphia Rapid Transit stockholders in dividends at the rate of 5 per cent per annum commencing in 1916.

C. Abstract from annual reports of Philadelphia Rapid Transit covering the period from formation of the company in 1902 up to incoming of Stotesbury-Mitten Management in 1911, showing the trend of events resulting in transformation of earned surplus in 1903, \$405,888, to a deficit from operation of \$1,222,735 for the year 1910, with the accompanying exhaustion of corporate assets and impending bankruptcy. To this will be added extracts from the pamphlet describing "Proposed Loan of 1911" embracing as it does the several letters outlining the scope of and reason for Mr. Stotesbury's undertaking the task. It might be well to explain that, as a first bid for public support, the interest of every newspaper was at the outset secured by my personally urging the righteousness of our undertaking and the need of establishing public confidence by a frank and fair statement of every change as made and the actuating reason therefor. The flu campaign, with its aggressive publicity, and the successful fight for skip-stop continuance will be referred to as will also the committee of thirteen and their wonderful work, as showing the need of broad-minded activities and also of untiring persistence in the interest of continuing economies essential to the low operating costs which made possible the basic fare of 5 cents.

2. THE COOPERATIVE PLAN OF 1911-1919.

A. Abstract of the printed booklet containing the cooperative plan, issues in 1918 following the indorsement of the War Labor Board, will review at some length the struggles of the period 1911-1918 and will describe the collective-bargaining feature.

The fact that the election of employee's representatives by secret ballot in 1918 was, at the request of the War Labor Board, conducted under the personal direction of the War Labor Board's representative, is notable, as this completed the performance necessary to the unqualified indorsement evidenced by letter of the War Labor Board's chief examiner, Mr. E. B. Woods, under date of December 10, 1918, stating that the plan for collective bargaining established among the workers of the Philadelphia Rapid Transit Co. was not only indorsed by Mr. Taft and Mr. Walsh, but that in addition, the entire board unanimously agreed that the general intent and spirit of its provisions were entirely in accord with the principles of the board.

B. The two-day picnic of the employees, September 3 and 4, 1919, at Willow Grove—the 50,000 attendance, the 99½ per cent membership, the expressions of the men as contained in the talks of the employees' representatives, the speeches of Chairman Elmquist and Chairman Ainey, and my own talk at the picnic dinner will be reproduced for the information of the commission. In these troublous times, it will be difficult for the members of the commission to understand how this oasis in the desert can possibly exist and I am only sorry that the whole commission could not have been at the picnic to absorb the atmosphere of confidence and contentment which provoked the notable expression contained in Chairman Elmquist's speech, giving to cooperation an added meaning, in that to us it now also spells "Patriotism."

C. The Cooperative Booklet containing the plan of August, 1911, describing the putting aside of 22 per cent of gross earnings into a wage fund, will be in evidence as will also all printed matter significant of the various moves undertaken from time to time to inspire confidence in the good intent of the management, and to show the firm stand maintained in support of the well-defined principles and established policy as set forth in the plan.

In the cooperative plan of 1918 it was made necessary to depart from the idea of participation in proceeds as contained in the cooperative plan of 1911, as a war-time expedient to bridge over a very difficult period. High wages will be continued, and, in addition, the return to a plan of participation by our employees in the results of their extraordinarily effective service is now being given careful consideration.

The cooperative plan, as presented to the unions in 1911, and their signed agreement to abide by the vote and thereafter cooperate under the plan will

be of interest. The troublous days of misunderstanding and misrepresentation will be reviewed from the Cooperative Bulletins 1 to 27, which carried the men and management through to the clearer understanding and complete confidence of the present day.

D. As showing progress along the way, there will be introduced an account of the hearings of the earlier Federal Industrial Relations Commission with which Mr. Walsh was so prominently identified and before which I gave evidence at the Philadelphia hearings in 1914.

E. Dashboard and bulkhead advertising and its effect in spurring on the activities of the men have been most useful in securing cooperation as between men, management, and car rider. The letters issued in folder form to all employees under dates of May 28 and August 13, 1919, urging salesmanship and increased patronage to overcome increased cost, which received such wide publicity through the press, represent a high note in this endeavor. The bulkhead, showing that "high fares make riders walk—low fares make walkers ride—more fares make low fares" represents top notch in keeping the attention of the car rider on what we are trying to do and creating a desire on his part to cooperate in making it an accomplished fact.

3. PHILADELPHIA'S EXPERIENCE.

The view of the Philadelphia situation will be considerably clarified when it is understood that Mr. Stotesbury's interest in the situation is not one of ownership, in that neither he nor I have any financial interest in the securities of the street-railway company.

Mr. Stotesbury is interested in accomplishing something worth while for the city of his birth, while my own ambition in this regard is to demonstrate that there is a real and rational way by which the vexed problem may be solved. My long experience covering nearly 25 years of continuous active service has been devoted to this task, viz:

1895-1900 Milwaukee.—From superintendent to general manager.

1900-1905 Buffalo.—From superintendent to general manager.

1905-1911 Chicago.—From vice president to president.

1911-1919 Philadelphia.—Chairman executive committee.

Results here secured are thrown into bold relief by comparison with conditions existing elsewhere. Philadelphia Rapid Transit, with almost 5 per cent less employees in 1910, is now producing over 98 per cent more effective traffic units per employee. This as against results secured on the Pennsylvania Railroad, contained in a speech by Vice President W. W. Atterbury as reported in the public press, wherein the number of employees is said to have been increased 14 per cent, the output (or effective traffic units) being 11 per cent less than in prewar days. The case of the Pennsylvania Railroad, showing decreased production, is but one of the many instances wherein the effort to increase production has given way to the great struggle upon the part of labor to secure a larger wage for a small amount of work.

Aside from the urgent necessity of helping to make up for the shortage of necessities occasioned by the war in Europe, it stands to reason that capital and labor can not divide that which does not exist and that more of everything essential must now be produced in order that there may be more with which to supply our needs. If the forces of labor and management will combine so effectively as to produce almost 100 per cent more per man, as we are doing here through cooperative effort, much, if not all, that is required to overcome the higher cost of living will have been accomplished.

The keystone of all success as between man and management is confidence. Distrust breeds discontent. Confidence begets confidence, and cooperative effort then becomes possible. The confidence of the men in the management and, likewise, the confidence of the management in the men, is what makes Philadelphia stand out in accomplishment.

Philadelphia is almost alone in its position of antagonism to "cash-box fare collection," or any system which tends to show a lack of confidence in the conductor. It can hardly be expected that a self-respecting employee will take seriously the statement that he is our partner if we require the action of the passenger to assure us that the fare collections are being properly made.

So much for confidence and its godchild, cooperation.

Frank statement, fair dealing, and honest purpose, with patience and perseverance, may be counted on in the long run to win the support of a community.

The public have for so long been befooled and bedeviled that they are now in a mood to question the demands not only of capital but also of labor. This feeling is growing in its intensity as the citizen of inquiring mind discovers that while all about is heard the demand for a living wage, yet all evidence of merchants is to the effect that the wage earner is now demanding the most expensive class of goods and buying with great prodigality. The owners of automobiles among the wage earners have become legion, and it would seem that the difficulty now is as much with the higher price of gasoline as with the increased cost of our daily bread.

My own statement before the Pennsylvania Public Service Commission in the Three-cent Exchange case may be taken as an example of frank statement showing the willingness of this management to jeopardize its own case rather than refrain from putting forth all of the facts necessary to the knowledge of the public-service commission. This statement will also be useful in setting forth our position as against city paving and other burdens of like character being placed on the back of the car rider and reiterates our conviction that such charges should be covered by general taxation and that the car rider should be given the fullest value for his 5-cent piece that cooperation between the public, the men, and the management can be made to produce.

4. THE EXPERIENCE OF OTHER CITIES.

The so-called service-at-cost plans are already proving a disappointment, for the reason that neither men nor management are paid according to the excellence of their work.

Boston is one example, where expenses have mounted skyward and no fare possible of collection has been found sufficient to meet the added cost of production.

Cleveland has already nullified Tom Johnson's accomplishment of sweating profits from the owners, and thus reducing rentals, by showing an inability to now produce its very short ride at 5 cents without charging an extra 1 cent for transfer. The city of Cleveland paves its own streets, and in addition pays its street railways in money for services sometimes required to be supplied gratis by the street railways in other cities. The public of Cleveland stands for much latitude in operating methods, in order to keep the fare down, while the contest between the men and the management as to which should get added compensation first goes merrily on. Surely the answer lieth not in this direction.

5. THE FUTURE IN THE LIGHT OF PHILADELPHIA'S EXPERIENCE.

Receiverships will in the near future make necessary many adjustments as between companies and communities. Readjustments should be approached in a spirit of fairness by both parties; and no advantage should be sought by communities because of the present condition of the companies in so far as it has been occasioned by the European war and the excessive costs resulting therefrom.

Valuation of properties, when resorted to as a basis of fare adjustment, should be made upon the then cost of reproduction, together with the added cost of producing a condition of readiness to serve. I have no patience with the contention that any community may now properly expect a valuation to be based on pre-war prices or the cost of earlier years. The only justification for such a claim would lie in the supposition that, instead of enjoying increased values in common with others, the companies were to be in some way assured of a continued reasonable return upon the invested capital. Communities did not give street-railway companies any such assurance. The companies took the same risks of profit and loss as did the investor in other kinds of property, consequently in such a time of readjustment it seems only just that the communities should be willing to establish a fare sufficient to pay a proper return on that sum representing the amount which it would cost the city itself to reproduce the property used and usable in transporting the people.

Philadelphia's plan is not offered as a cure-all for other cities. Every situation has its own peculiar difficulties to overcome, but in the light of this experience it is our plain duty to decry the thought that there is any cure for the present trouble excepting that which lies in honest dealing—efficient management—effective workers.

Mr. JOYCE: With that as an outline, I shall present these various exhibits and offer such comment as may seem to be pertinent.

I have here an income statement of the Philadelphia Rapid Transit Co. for the eight months ended August 31, 1919. I shall offer this in evidence and point only to the comparison between 1919 and 1918, showing that 1919 is fairly well holding its own in spite of the increased wages to trainmen and to other employees.

Operating revenues for the eight months in 1919 were \$22,900,000; in 1918, \$20,400,000.

Operating expenses and taxes in 1919 were \$15,800,000; in 1918, \$13,400,000.

The operating income, obtained by deducting the expenses from the revenue, was: In 1919, \$7,131,000; in 1918, \$7,041,000.

Nonoperating income: In 1919, \$354,000; in 1918, \$420,000.

Gross income: 1919, \$7,485,000; 1918, \$7,462,000.

The fixed charges in 1919 were \$6,483,000; in 1918, \$6,406,000.

Leaving a net income available for dividends on the stock of the company, 1919, \$1,001,594; in 1918, \$1,056,100.

In the eight months of 1919 we have earned more than the proportion of the dividend of 5 per cent upon the \$30,000,000 of capital stock, so that if we continue at the present rate of net income we will have earned more than our 5 per cent dividend this year.

The paper just referred to was thereupon marked "Exhibit No. 1, Witness Joyce," and is as follows:

Income account of Philadelphia Rapid Transit Co.

	July, 1919.	July, 1918.
Operating revenue.....	\$2,872,717.46	\$2,672,710.18
Operation and taxes.....	2,031,219.28	1,694,968.92
Operating income.....	841,498.18	977,741.26
Nonoperating income.....	46,113.17	53,552.78
Gross income.....	887,611.35	1,031,294.04
Fixed charges.....	816,141.54	799,865.38
Net income.....	71,469.81	231,428.66
	August, 1919.	August, 1918.
Operating revenue.....	\$2,916,816.55	\$2,676,465.06
Operation and taxes.....	2,093,034.15	1,857,622.77
Operating income.....	823,782.40	818,842.29
Nonoperating income.....	43,462.57	48,725.68
Gross income.....	867,244.97	867,567.97
Fixed charges.....	813,721.64	803,975.53
Net income.....	53,523.33	63,592.44
	Eight months ended Aug. 31—	
	1919	1918
Operating revenue.....	\$22,964,499.82	\$20,444,555.42
Operation and taxes.....	15,833,330.50	13,402,587.13
Operating income.....	7,131,169.32	7,041,968.29
Nonoperating income.....	354,089.38	420,391.06
Gross income.....	7,485,258.70	7,462,359.35
Fixed charges.....	6,483,664.65	6,406,258.44
Net income.....	1,001,594.05	1,056,100.91

Commissioner SWEET: Will you explain a little more fully with regard to the fares paid? I understand it is a 5-cent fare, paid in cash; and, then, are the tickets sold at a lower rate?

Mr. JOYCE. The 5-cent fare is paid in cash. The average fare, of 3.98 cents, is obtained by dividing the total number of passengers, including the 3-cent exchange passengers, transfer passengers, with the 5-cent passengers, and that gives us the showing of 3.98 cents.

Commissioner WEHLE. You spoke of a 3-cent transfer?

Mr. JOYCE. There are certain points of transfer in the city at which transfer tickets are obtained only by paying therefor 3 cents. I will advert to that later and give you the detail of it, if you care to wait that long, or I will give it to you now.

Commissioner WEHLE. Just in connection with that will you explain how you used number of 3-cent transfer passengers? Do you use them in your compilation in order to arrive at the average fare paid?

Mr. JOYCE. Yes.

Commissioner WEHLE. That is, you treat the 3-cent-transfer passenger as a passenger?

Mr. JOYCE. Yes; and also free transfers. Therefore, a passenger who obtains a transfer, whether he pays for it or not, counts in our statistics as two passengers—two rides. Really it should be described in terms of rides rather than in terms of passengers.

When the Stotesbury-Mitten management took control of the Rapid Transit Co. in 1911, the company had failed by \$1,300,000 to earn its fixed charges in 1910. It had passed through several disastrous strikes, and another strike seemed imminent. Its track and structures were run down and its cars were obsolete and dilapidated.

Steps were immediately taken to rehabilitate the road and to acquire a sufficient number of modern cars to supply the needs of the community.

It was early recognized that the most important element in successful operation was the current upkeep of the property, and it was determined that for this purpose a sum equal to 15 per cent of the gross revenue would be required per annum.

Prior to 1911 the sums appropriated for that purpose were not more than 12 per cent of the gross.

To meet the requirements for the rehabilitation of the property an issue of \$10,000,000 of bonds was authorized, which when guaranteed by one of the lessor companies were marketed. It was necessary to get that guaranty before the bonds could be sold.

After a careful study of the labor situation, Mr. Mitten evolved a plan of cooperation, which I shall describe later; whereby the men should share in economies and efficiencies accomplished through their efforts. The plan was readily adopted by the men, and the company entered upon a new era of cooperation and mutual confidence.

A report issued by the company to its stockholders and to the public recently, a copy of which is before you, reviews briefly and concisely the accomplishment of the management for that period.

That report shows that in 1910 the company carried 445,000,000 passengers—and by “passengers” there I mean again rides—at an average rate of fare of 4.13 cents per passenger, taking revenue and transfer passengers combined, while in 1918 it carried 767,000,000

passengers at an average rate of 3.98 cents. It is confidently expected that in 1919 the company will carry 850,000,000 passengers.

In 1910 the maximum wages of trainmen were 23 cents per hour, while in 1918 the men received 48 cents, and this has since been increased to 58 cents.

In 1910 the population of Philadelphia rode an average of 288 rides a year per capita, while in 1918 the average is nearly 400, and in 1919 exceeds 400.

The gross earnings of the Rapid Transit Co. in 1910 were \$19,000,000; while the gross earnings in 1919 bid fair to exceed \$35,000,000, an increase of 82 per cent.

During this period the yearly wages of the employees were increased from \$622 to \$1,581.

The company has paid a 5 per cent dividend annually since 1916, while the deficit from operation of \$1,300,000 has been changed to an accumulated surplus of \$4,482,000 at the close of 1918.

Six thousand and seventy-eight trainmen are now taking in \$34,000,000 of passenger earnings, while in 1910 more trainmen were required to take in \$19,000,000 of earnings. Mr. Mitten credits this accomplishment to the greater efficiency of the men, who have during this period increased their effective transportation per man, to the esprit de corps through all departments of the company, and particularly to the active and enthusiastic cooperation of the trainmen does Mr. Mitten give a great share of the credit for the success of his management.

As an indication of the effectiveness of this cooperative plan, a glance at the statistics of dismissals and resignations among the trainmen is illuminative.

I want to read here a table of dismissals and resignations which I had prepared:

In 1911 there were appointed, 2,453 men; resigned, 1,106; discharged, 1,031. The average number of motormen and conductors in service was 6,880. The per cent of labor turnover in that department, 35.14.

In 1912 there were appointed, 1,256; resigned, 986; discharge, 566. Average number in service, 6,908. Per cent turnover, 18.18.

In that year you will see the advantage of cooperation was already beginning to show itself.

In 1913 there were only 794 men appointed, 547 resigned, 365 were discharged. There were an average of 6,552 in service, and a turnover of 12 per cent.

In 1914 there were 229 men appointed, 232 resigned, and 203 were discharged; 6,162 was the average number of men in service. Per cent of turnover, 3 per cent.

In that year there was considerable change in the routing of the cars, with a decrease in the number of men in service; so that, therefore, the figure for 1915 will reflect some of the results of that change.

A change in the rerouting, reducing the number of men, and the necessarily fewer appointments is reflected; there were no men discharged by reason of the rerouting, but the ordinary labor turnover was depended upon to take up the slack; so that in 1915 there were only 83 men appointed, 177 resigned, 110 discharged. We had

an average of 5,929 in service. The labor turnover was one-tenth of 1 per cent.

In 1916 we began to feel the effects of the war. That year there were appointed, 1,339; resigned, 509; discharged, 564; average number, 5,962; per cent of turnover, 22 per cent.

In 1917, 1,994 were appointed; resigned, 1,574; discharged, 285; average number in service, 6,131; per cent of turnover, 32.

In 1918, appointed, 4,817; resigned, 3,551; discharged, 1,014; average number in service, 6,114; per cent of turnover, 78 per cent.

In 1918 we had the full brunt of the war and the draft and the high wages paid in the munitions factories and the resultant high per cent of turnover.

In 1919, for eight months, appointed, 1,139; resigned, 774; discharged, 450; average number in service, 6,143; turnover, 18 per cent.

We are returning now to normal conditions. The men who left the Amalgamated Association of Street and Electric Railway Employees of America in 1911 continued at times to disrupt the harmony created by the Cooperative Association, and in 1916 attempted to lead their fellow employees to strike, but without success.

In 1918 an attempt was made under the same leadership to take advantage of the depleted forces on account of the war, but the company was able to show by testimony of representatives of the shipyards and the munitions works that service had not been interrupted, and the appeal made by the strike leaders to the War Labor Board was dismissed following the voluntary undertaking of the management to adopt the scale then being made effective by the War Labor Board to govern the cities of Chicago, Cleveland, Detroit, and Buffalo, thus discontinuing the 22-per cent fund which had been established and undertaking to give the objective employees an opportunity of continuous employment. These leaders continued, however, to press claims of discrimination before the War Labor Board resulting in an investigation of the cooperative plan by the agents of the War Labor Board. This investigation and the examination of those who appeared representing the cooperative plan directed the attention of the management to certain points in the plan there shown as capable of being misrepresented and misunderstood. This, together with the abolition of the 22-per cent fund, the establishment of the War Labor Board basis for the new wage scale and the apparent desirability of broadening and enlarging certain features of the plan made necessary the preparation of an amended plan, which was submitted to the employees by means of the United States mail and adopted by a vote of 8,053 out of a total of 9,075 eligible employees. The plan was submitted to the War Labor Board and approved. I shall present a printed copy of that plan.

Commissioner MAHON. You say in 1918 the Amalgamated men attempted another strike on your road?

Mr. JOYCE. Not the Amalgamated men. The men who were led out of the Amalgamated at an earlier period by a leader whose name is C. O. Pratt and who was not affiliated with the Amalgamated at that time.

I will give a brief synopsis of the plan so you may have it in your minds and ask such questions and such enlargement of the data as you may care to.

Mr. WARREN. Before you do that, I thought you spoke of 9,000 men.

Mr. JOYCE. The 9,000 men embraces the men in other departments who were permitted to enjoy the benefits of the cooperative plan under the new arrangements. Prior to that time that plan had been confined only to trainmen.

Mr. WARREN. The figures you have been giving previously are all trainmen?

Mr. JOYCE. Yes, sir. Employees' representatives, two for each branch or station. Term of office, one year. Qualifications, two years' service and regular assignment for duty. Nominations and elections; candidates file nomination papers signed by seven or more electors. Dates and hours of election set so as to insure every qualified voter an opportunity to vote. Secret ballot. Election supervision by committee of three chosen by and from respective department committees for employees. Vacancies filled by special elections. Notice of election is posted conspicuously at each branch 21 days in advance. I am submitting a set of forms used in these election proceedings.

The ballot and notice of election, the provision for nominations, which may be compared to the primary election, the ballot which is posted before election, and a diagram of the voting place and a picture taken at the time of election—

Commissioner MEEKER. Have you duplicates of those papers?

Mr. JOYCE. I have two copies of the picture that you can examine. That shows a typical election place at one of the car-barns of the company.

Who may vote: Any employee who has been in the service of the company six months, who is regularly assigned to duty. Persons holding official positions of any character with the company are excluded.

The company representatives are appointed by the president of the company, not to exceed the number of employee representatives.

The jurisdiction is unlimited as to collective bargaining.

The organization consists of branch committees consisting of two employees' representatives for each branch and two company representatives. The department committees consist of all branch representatives elected in a particular department and an equal number of company representatives.

The following department committees are organized: Transportation, rolling stock and buildings, electrical, way, and general offices.

There are two chairmen for each committee, one for the employee members and one for the company members.

When a vote is taken by any joint committee, each side has the right to retire and cast its vote in secret caucus. The majority vote of each side is regarded as a unit vote. When the vote of both sides of a joint committee is in agreement, the controversy is settled.

Branch committees meet whenever necessary. Department committees hold regular bimonthly meetings. The general committee

meets regularly once each month and conducts special meetings whenever necessary.

The general committee has power to review, modify, or reverse any finding or decision of the departmental committees. When the lower authorities are unable to reach an agreement, grievances are carried to the higher authorities in the following order:

First. They originate in the branch committees.

Second. Appeal to the departmental committee.

Third. Appeal to the general committee.

The decision of the general committee shall be final and binding. If, however, the general committee should fail to reach an agreement, an appeal is made to arbitration. One arbitrator is chosen by the general committee for employees and another by the general committee for employers. The two arbitrators so chosen select a third. Failing unanimous decision, the decision of any two of the three arbitrators shall be binding. In the event that the two arbitrators are unable to agree upon a third arbitrator, then the provost of the University of Pennsylvania, the chairman of the Public Service Commission of Pennsylvania, and the president of the Chamber of Commerce of Philadelphia shall be requested to serve as additional arbitrators, or, failing so to do, to appoint their personal representatives to act as such additional arbitrators.

Amendments to the plan may be made by a decision of the general committee.

Miscellaneous provisions. At least once in every three months there shall be an opportunity for the meeting of the workers at each branch when reports shall be made by the local branch committeemen to their fellow employees.

Employees' representatives are paid for the committee work at their regular rates of wages from the funds of the cooperative welfare association. The company representatives receive regular rates of pay from the company.

All expenses incident to the operation of the cooperative plan are paid from the funds of the cooperative welfare association.

There is, in addition to that and running along parallel with it, a cooperative welfare association, the membership in which is open to employees one year or over in the service and over 16 years of age, without initiation fee; \$1 per month will be deducted from the pay of each member, and the dues will entitle members to life insurance, sick benefits, and pensions.

The company, during the period of this management has paid into the various funds representing sick benefits, pensions, death benefits, and other benefactions at the rate of approximately \$90,000 per annum. Under the cooperative plan of 1918 the company will contribute a lump sum of \$10,000 per month to the cost of carrying out the conditions contained therein. That has recently been increased to \$20,000 per month so long as the men maintain a membership of 95 per cent or over.

Should the income realized by the payment of \$1 per month from the members and the contributions of the company be found insufficient to meet the expenditures of the association, the dues of the members will be increased sufficiently to prevent a deficit in the funds of the association and no increase in the amount paid by the

company shall be made until the total amount paid monthly by the members equals the \$10,000 paid monthly by the company. Thereafter all increases shall be borne equally by both. The company, however, will not reduce its minimum payment of \$10,000 per month should the present dues of \$1 per month create a surplus in the funds of the association.

A life-insurance policy, a blanket policy, is issued by the Metropolitan Life Insurance Co., insuring the lives of the employees of the company desiring to avail themselves of this protection through the medium of the cooperative welfare association.

Certificates of insurance providing for \$1,000 life insurance have been delivered into the possession of each member of the association, to remain in full force and effect so long as the member continues in the employ of the company and retains membership in the association.

This replaces the death benefit of \$150 formerly paid under the cooperative plan of 1911, to which the members contributed 25 cents per month, and also replaces the \$500 given by the company to dependents of deceased employees who had been over two years in its service.

The Metropolitan Life Insurance Co. makes payment of benefits and insurance under its policy direct to the beneficiaries of the members of the cooperative welfare association.

Each certificate of insurance for \$1,000 issued by the Metropolitan Life Insurance Co. entitles the holder, upon leaving the employ of the company, to reinsure for the same amount with the insurance company without medical examination, at rates based upon the member's then attained age. Any such member subsequently returning to the employ of the company will again become eligible.

The special feature of this insurance is a provision that in case of total and permanent disability accruing before the members shall have attained 60 years of age, from causes arising after the issuance of insurance, the insured will be entitled to receive from the insurance company the \$1,000 covered by the policy in monthly or yearly installments as set forth in the certificate.

Sick benefits are payable—

The CHAIRMAN. Can you answer one question now?

Mr. JOYCE. Certainly.

The CHAIRMAN. Does the insurance company require a physical examination before it issues the policy?

Mr. JOYCE. No. Sick benefits are payable at the rate of \$1.50 per day, commencing with eight days' illness, for a period not to exceed 100 days in any consecutive 12 months. This replaces the former sick relief of \$1 per day for 100 days in any consecutive 12 months.

Pensions of \$40 per month are payable to incapacitated employees who have reached 65 years of age and have been continuously in the service for 25 years; meritorious cases of long service, but falling short of these requirements, to be given special consideration.

This increases the former pension plan from \$20 to \$40 per month.

The affairs of the cooperative welfare association shall be administered by a cooperative council consisting of the combined membership of the two general committees for collective bargaining.

The administration of the cooperative welfare association shall be entirely separate and distinct from the function of collective bargaining.

The cooperative council shall act as trustee of insurance for the cooperative welfare association and shall also authorize the expenditures of all money, including payment of sick benefits.

The cooperative council shall also pass upon the issuance of insurance certificates and the validity and merit of all applicants for pensions.

The president of the cooperative welfare association, who shall also act as chairman of the cooperative council, shall be elected annually from the membership of the association by the majority vote of all the members of the several committees for employees.

The chairman of the board of directors and the president of the company shall be the honorary chairmen of the cooperative council.

The secretary-treasurer of the cooperative council and the assistant secretary-treasurer shall be appointed by the president of the company. The association shall employ such other assistants as may be required.

The company's auditing and treasury departments are to be placed at the disposal of the cooperative council for the purpose of keeping the accounts and safeguarding the funds of the cooperative welfare association.

Commissioner MEEKER. Have you more than one copy of the cooperative plan?

Mr. JOYCE. Yes, sir.

Commissioner MAHON. You say the war board has indorsed that plan. Do you know that to be a fact?

Mr. JOYCE. I will submit here at this point, if the commission please, a letter dated December 10, 1918, addressed to Mr. Robert M. Kernaghan, secretary of Division No. 477, 1007 Foulkroyd Street, Philadelphia, Pa.:

Mr. ROBERT M. KERNAGHAN,
Secretary, Division No. 477,
1007 Foulkroyd Street, Philadelphia, Pa.

DEAR SIR: Answering your inquiry of December 2, directed to the honorable Frank P. Walsh and referred to me for attention, permit me to inform you that you have not only been correctly informed by Mr. Caskie that the plan for collective bargaining now being established among the workers of the Philadelphia Rapid Transit Co. was indorsed by Mr. Walsh and Mr. Taft, but the entire board unanimously agreed that the general intent and spirit of its provisions were entirely in accord with its own principles, and, by way of cooperating in the carrying out of the initial elections to be held in accordance with such plan of collective bargaining, they directed me to appoint an examiner to supervise such elections.

The plan of collective bargaining provides for its amendment to meet future conditions, and we believe that after giving the same a fair trial it will be found to substantially meet the requirements.

Very truly, yours,

(Signed) E. B. Woods,
Chief Examiner National War Labor Board.

Following that, the War Labor Board sent three examiners to Philadelphia to conduct that election, and they conducted it to the exclusion of all employees of the Philadelphia Rapid Transit Co., and the results of the election were signed by the committee conducting the election. I have a copy—

Commissioner MAHON. That is all the evidence you have, then, that the War Board indorsed that plan?

Mr. JOYCE. We have letters which you will find printed in the co-operative-plan booklet which I have submitted.

Commissioner MAHON. From whom?

Mr. JOYCE. A letter addressed to the joint chairmen by President Mitten under date of November 4, 1918; a letter addressed to President Mitten—

The CHAIRMAN. On what page of the booklet?

Mr. JOYCE. On page 34 of the booklet.

Commissioner MAHON. Addressed to whom?

Mr. JOYCE. Addressed to the general chairmen by President Mitten, and their reply written by Mr. W. Jett Lauck, secretary of the National War Labor Board, under date of November 9. A further letter addressed by President Mitten to the general chairmen under date of November 21. Those letters and the letter of Chief Examiner Woods are the evidence that we have of the approval of the War Labor Board.

Commissioner MAHON. Well, the letter of Mr. Lauck is not an indorsement of the board. You have no further evidence to show the indorsement of the board?

Mr. JOYCE. No further evidence.

I have here the proceedings of the annual—

Commissioner MAHON. I would like to ask you, while you are on that cooperative plan, how you fix the wages now?

Mr. JOYCE. The wages are now fixed by agreement with the men based upon the average of the wages paid in the four cities which at the time were the four best cities from the standpoint of the men, I believe; namely, Chicago, Cleveland, Detroit, and Buffalo.

Commission MAHON. How do you fix that wage, then?

Mr. JOYCE. When any change is made in the wages paid in any of those cities a new average is struck. For example, when Detroit went up we struck a new average, resulting in an increase in the wages in Philadelphia. When Chicago went up we struck another new average resulting in a further increase.

Commissioner MAHON. How do you average them?

Mr. JOYCE. By adding the four together and dividing by four for the maximum and minimum.

Commissioner MAHON. What wages are you paying your men now?

Mr. JOYCE. 58 cents.

Commissioner MAHON. You get that by averaging the wages for the four union cities?

Mr. JOYCE. Yes, sir; 61 cents to the trainmen on the elevated.

Mr. WARREN. 58 cents is surface?

Mr. JOYCE. Yes; 58 cents to the surface.

Commissioner MEEKER. It is not a weighted average?

Mr. JOYCE. No.

Commissioner MEEKER. That is, you do not multiply the rates by the number of men?

Mr. JOYCE. No; it is not a weighted average.

Commissioner MAHON. Can you tell, or have you any figures to show, the number of cars operated and the number of men employed in 1903 as compared with the number in 1917 or 1918?

Mr. JOYCE. I have not those figures with me, Commissioner Mahon, but we can prepare them and send them to the commission.

Commissioner MAHON. But there was a rerouting and reconstructing of all that property in that period, was there not?

Mr. JOYCE. In 1913 and 1914 there was a general rerouting of cars to take advantage of unified operations.

Commissioner MAHON. And that meant a reduction in the number of men?

Mr. JOYCE. Yes; that was reflected, as you will remember, in the table of labor turnover that I read.

Commissioner MAHON. And there was a change in the condition of hours, was there not?

Mr. JOYCE. I think not. I think no change in the condition of hours at that time.

Commissioner MAHON. That is an important item in what you are showing here that I think this commission ought to be in possession of clearly.

Mr. JOYCE. A statement as to whether there was a change in the number of hours?

Commissioner MAHON. Yes; as to the change of hours and conditions and as to the change that has taken place; that is, to my mind, you have reduced considerably the number of cars that were in operation and curtailed, of course, the expenses of operation while you are carrying a greater number of people on a much less number of cars and for much less cost to your company than before. I think that is an important matter.

Mr. JOYCE. Yes; we increased by the changes in equipment the seating capacity of cars operated through the business district during the evening rush hours by 65 per cent.

Commissioner MEEKER. That is, the number of seats?

Mr. JOYCE. That is, the number of seats operated during the rush hours, by 65 per cent.

Commissioner MEEKER. That was between what dates?

Mr. JOYCE. That was as a result of the introduction of a new and larger car shortly after the Mitten management in 1913 and 1914. The Mitten management was not able at one blow to bring into effect all of its planned changes, but the introduction of those betterments was postponed due to the delivery of equipment and to the financing and to the cooperation of the men and the cooperation of the public, which was very necessary.

The CHAIRMAN. Perhaps you can answer Mr. Mahon's question or else supply the information. He wants to know if that rerouting resulted in a lesser number of cars, and, if so, how many?

Mr. JOYCE. It did result in a few less cars; how many I do not know, but we can obtain that data for you and submit it.

Commissioner MAHON. You showed one important thing there; a difference in the seating capacity of 65 per cent more people during the rush hours. What I wanted to ask was this: Philadelphia was considered at that time, as we call it in the railroad world, an over-railroaded town when Mr. Mitten went in, and it was all readjusted, was it not?

Mr. JOYCE. Yes, sir; there was a very complete readjustment of the running of the cars. Where cars came down town from the north

and turned and made various tortuous routes through the business district, through the heavy traffic they were routed through from north to south and their routes were straightened out so as to improve the headway and the speed of the cars and to lessen delays of traffic. That I think everybody in Philadelphia now regards as a very beneficial change, both to the service and to the community.

Commissioner MAHON. Undoubtedly. I am not criticising that. The point I wanted to show is you cheapened the cost of operation to a greater extent possibly than any other railroad in the country.

Mr. JORCE. I wish to review to some extent the cooperative plan as it was first introduced.

It was born out of a feeling upon Mr. Mitten's part that it was essential that there be a greater degree of team work among the motormen and conductors. This, it was believed, could only be secured by eliminating that constant cause of disagreement due to the fact that there were rival labor organizations. It was believed that there should be a more definite understanding between the men and the management to insure a lasting peace and a general upbuilding of the property and that whatever plan of co-operation was determined upon should be concurred in by so large a proportion of the men as to establish that which is necessary to the success of any undertaking. It was believed that this degree of cooperation could be obtained and would find its expression in everyday earnest effort to render more efficient service when it had been made clear to the men that they should share in the increased earnings due to the added effort on their part and efficiency.

It was found then that the total wages paid trainmen, plus the amount of sick benefits and other payments corresponding to remuneration for service, aggregated a sum equal to 21.8 per cent of the gross passenger revenue. It was believed that it would be impossible for the company to survive if it increased the proportion of its earnings then paid to the trainmen, for already the company had fallen short by over \$1,300,000 of meeting its fixed charges, but the management recognized that there were great possibilities in that percentage of gross if it could secure the cooperation of the men.

Mr. Mitten called the men together and explained the situation to them and promised them that if they would cooperate with his management under the plan which he had developed he would set aside 22 cents out of every dollar which the company should receive in fares as a fund to be used for the wages of the trainmen.

He went to each barn and met the men in session and explained his plan to them.

The question as to whether the management would deal with its trainmen as individuals or as an organized body would have to be determined. If with the men individually, the plan would be made effective as soon as the fact had been determined. If with an organization, it could not only be with such an organization as would be willing to enter into an agreement to cooperate with the management in its efforts to improve service. The management did not wish to take a position either for or against either of the organizations having membership among its men. The management decided to submit the matter to a vote of the men, with the understanding that if two-thirds of the men by secret ballot determined

that a contract should be made by the company with organized labor the company would make such a contract, and while it could not require any of its men to belong to a labor union, it could, if there was so large a majority as two-thirds of its men desirous that such a contract be made with the members of the labor organization, pay from the 22 per cent fund the sum of the dues of every man. In other words, if the company dealt with the union, the company would undertake to collect the union dues and pay them out of the wages of the men. It would collect from every man and it could not undertake to do that without as large a vote as two-thirds. It was thought by so doing the management could eliminate that continual cause of trouble by collectors of dues at the car-barns, of organizing men on the cars, and the constant quarreling and disturbance occasioned thereby.

The representatives of both the Amalgamated and the Keystone organizations agreed to this plan and at the request of the Amalgamated such a vote was taken. The agreement under which that vote was taken is an interesting document. It is signed by the representatives of the organization and I happen to have a copy of it here and will place it before you.

The paper is as follows:

PHILADELPHIA RAPID TRANSIT CO.—INFORMATION TO CONDUCTORS AND MOTORMEN.

I. What you are voting on.—The Amalgamated Association has asked that the vote be taken on the following question:

QUESTION: Shall the Amalgamated Association of Street and Electric Railway Employees of America, division No. 477, make a contract with the Philadelphia Rapid Transit Co. upon the basis of the "Mitten plan" as published in book form and dated August, 1911?

I vote _____.

If you vote "yes" you vote to have the Amalgamated Association represent all the men affected in carrying out the plan of August, 1911.

If you vote "no" you vote to have the plan carried out by the Statesbury management but without having the Amalgamated Association act as your representative.

II. Who can vote.—The 22 per cent relates to gross passenger earnings only and is appropriated solely for the benefit of employees engaged in passenger service, viz: Motormen and conductors of passenger street-cars, and motormen and conductors, guards, or trainmen of the Market Street Elevated. This to include such new men as have completed their work as students and have been accepted as employees of the company prior to the date of this notice, but does not include men assigned to other duties who have not, during the three months preceding the date of this notice, been actually engaged in the operation of cars.

The earnings derived from mail, express, ash, and freight service are not included in the 22 per cent fund. Motormen and conductors engaged in this service are not therefore entitled to vote.

In order to show exactly who can vote, lists have been prepared at each depot giving name and badge number of all motormen, conductors, trainmen, or guards who are entitled to vote. These lists are posted herewith and are subject to correction upon application to the division superintendent at any time up to 6 o'clock Monday evening, October 30, after which they will be certified by the division superintendents, and only those then on the lists can vote.

III. When and how the vote will be taken.—The vote will be taken at Horticultural Hall on Wednesday, November 1, beginning at 8 a. m. and closing at 10 p. m., or as soon thereafter as all the men then present can deposit their ballots.

The vote will be a secret one and so conducted that no person in the management or among the men can tell how any man voted. The men must vote in uniform and be identified by their badges.

The Amalgamated Association and the Keystone Association will each appoint three men to supervise the election, and the company will ask the newspapers to appoint a third committee of disinterested citizens for the same purpose. One judge from each of these committees will be on duty at all times. The votes will be counted under the supervision of three judges as aforesaid and the result certified by a representative of each of the three committees.

The company urges every man to vote on this question.

Approved for the executive committee.

T. E. MITTEN, *Chairman*.

Approved for the general executive board.

P. J. SHEA.

PHILADELPHIA RAPID TRANSIT CO.,
By CHAS. O. KRUGER, *President*.

AMALGAMATED ASSOCIATION OF
STREET AND ELECTRIC RAILWAY
EMPLOYEES OF AMERICA, DIVI-
SION No. 477.

By Committee:

PETER DRISCOLL, *President*,
HUGH BARRON, *Secretary*,
C. O. PRATT, *Business Agent*,
ARCHIE CHAMBERS,
HARRY F. FLYNN,
ROBERT M. KERNAGHAN.

PHILADELPHIA, *October 25, 1911.*

Attached to this is a ballot which reads as follows:

BALLOT.

QUESTION: Shall the Amalgamated Association of Street & Electric Railway Employees of America, Division No. 477, make a contract with the Philadelphia Rapid Transit Co. upon the basis of the "Mitten plan," as published in book form, and dated August, 1911?

I vote _____.

To vote in favor of a contract being made with the Amalgamated Association of Street & Electric Railway Employees of America, Division No. 477, write the word "Yes" in the above-provided space.

If against such contract being made with the Amalgamated Association, write the word "No" in the blank space.

Now the result of that vote, which was conducted in a downtown hall in the center of the city, and which was presided over by a committee consisting of representatives of the newspapers, representatives of the men, and representatives of the company, was that the men fell short by 253 votes of reaching the required two-thirds majority in favor of the collective dealing.

Shortly after this and before the company—

The CHAIRMAN. How many of the men voted?

Mr. JOYCE. I believe that 85 per cent of the men voted. The voting continued all day and well into the night.

Mr. WARREN. Was it to be decided by two-thirds of those voting?

Mr. JOYCE. By two-thirds, as to whether the company would deal with the organization or with the individual men.

Mr. WARREN. Of those voting or of the total number of employees?

Mr. JOYCE. Of those voting, I believe.

Before the company had come to a decision, however, there was a split in the Amalgamated Association and that division and a faction led by Mr. C. O. Pratt, who was then business agent, broke off from the Amalgamated, so that we then had in Philadelphia three unions, the Amalgamated, the followers of C. O. Pratt, and the so-called Keystone Union, known, I believe, as the United Carmen of America, and all of these organizations put together did not make up a total of 40 per cent of the men.

The company therefore elected to deal with the individual men. The plan was put into effect and at the outset there was much bitter feeling between the men and it was difficult to know how to get representatives selected at the various car-barns, so that in the beginning the representatives of the men were selected by the superintendents. At the end of the first year an election was held and the selection of the men submitted to a vote, with the result that the vote was divided at each barn in about the proportion of the division of the men at that barn among the various labor organizations. It was decided to select two representatives then from each division, these two being men taken from the highest votes, so that possibly a representative of the warring labor factions would be upon the committee.

It was found that approximately 98 per cent of the men voted at this election, and that about 80 per cent of the men voted for the men selected for the various depots. At the same time there was formed the cooperative welfare association, with sick benefits of \$1 a day for 100 days and \$150 death benefits, the company contributing to this beneficial association an amount equal to the total contribution of the men. Prior to that time there had been 11 independent sick-benefit associations among the men. The cooperative committee produced a cooperative-buying plan with the aid of the management by which all employees were enabled to make a saving of 8 per cent on the purchase of the necessities of life. The plan was to designate stores throughout the city where, by agreement with the merchants, coupons obtained by the men from the cooperative committee at a discount of 8 per cent would be accepted at face value in payment for merchandise. This plan continued in operation for some time, and was finally abandoned because of lack of interest on the part of the men. That plan is not now in operation.

As showing the flower and the fruit of this cooperative plan, I wish to refer again to the table showing the turnover in labor, the few resignations and dismissals under the plan as compared with the many before the plan was adopted, and the small turnover in labor.

On September 3, 1919, and September 4, there was held at Willow Grove Park an outing or picnic to afford the men an opportunity to get together and with their families meet for two days of holiday and there to mingle with the representatives of the company and to hold the annual dinner, or the cooperative dinner.

At this dinner the representatives of the men were called upon for remarks, and it would be interesting to read the remarks of these men. I will present this to you so that you will have a complete copy of them, and you will be able to get the atmosphere of the dinner as well as one can by reading the proceedings. We had them reported by a stenographer so that we would be able to publish the result.

I will refer briefly to Mr. Mitten's appeal to the public through publicity and through an effort on his part to gain the good will of the car riders.

Mr. Mitten regards the continued confidence and support of the public as one of the most essential conditions to successful street-railway operation. It is his aim to instill in the public mind the

conviction that street railways are their property in the true sense of the word, since they are supported solely by the people, and that therefore whatever burdens are placed upon the street-railway company by the municipality or by any group of citizens constitute a burden upon the whole people of the city.

When a street railway company appeals to the municipality for relief from burdensome license fees and other municipal charges, if it speaks simply as a corporation in business for the purpose of enriching its stockholders, it is not likely to have public support in its appeal, and without public support it stands a small chance of obtaining. If it can succeed, however, in substituting the public for the corporation, so that when it is appealing for relief it is appealing in the name of the public, then its chance of success is good.

Whenever a street-railway company endeavors to introduce economies by rerouting its cars or by abandoning service where service is not required and is not profitable, if the abandonment of such service should cause even slight inconvenience to a small portion of its patrons, the efforts of the company to effect such economies are likely to fail, unless it has the public support which follows the feeling on the part of the public that the interest of the traction company in such matters is identical with the interest of the car riders.

For example, the Philadelphia Rapid Transit Co. some years ago, by careful traffic studies, determined that service on Passayunk Avenue in Philadelphia was unnecessary, that the territory was adequately served by many other lines, that the running of cars on that street was a burden of something over \$60,000 a year to the company, which was not justified by the service rendered. It therefore took steps to abandon that street.

There was strenuous objection on the part of the storekeepers on that street, to the effect that their business would suffer by reason of lifting the car tracks from that street, although it was proven conclusively that the riding on that street was practically negligible, that the service was infrequent, and that the real service to the public was performed by other lines.

When the company had obtained the permission of the public-service commission to lift those tracks, those storekeepers formed themselves into a business men's association and appealed the case, and it is now in the courts.

Now, if the company has not full public support in its efforts in that direction, it is not able to stand against that kind of opposition. Those who object will meet with public support against the company, unless the company has, by enlisting the confidence of the public on its side, established itself in such a position that it can come before the public and have behind it the support of the public.

One of the first moves made by Mr. Mitten upon assuming the responsibilities of management was to call personally upon the responsible heads of the several newspapers printed in Philadelphia and to explain his plan to them. This was followed by continued cooperation and continued cordial relations between Mr. Mitten and the public prints; so that whenever he put forward a new idea the papers, instead of attacking his idea, would support it if it had

been demonstrated to them that it was for the improvement of service.

During the influenza epidemic in 1918, Mr. Mitten became perhaps the leading force in Philadelphia in combating that terrible scourge. He used his cars as mediums for conveying the advice of the health officials and of the self-constituted committees of physicians of the city by spreading broadcast their advice; and he caused the equipment of the company to be placed at the disposal of the city departments for sprinkling the streets to keep down dust, and caused his entire organization to be enlisted in facilitating the distribution of preventive medicines and advice for strengthening his men against contagion.

He issues, concurrently, letters to his trainmen and to the other employees urging upon them the education of the public by stopping promiscuous spitting upon the cars and upon the platforms of the company. In that way he demonstrated conclusively that his company was an agency for good in the community.

He found that his publicity campaigns urging the public to cooperate with the company had a stimulating effect upon his men; that a man riding upon a car that carried a slogan of advice to the community to cooperate would put forth better efforts to supplement the efforts of the company.

This campaign was followed by a campaign for increasing the number of riders upon the cars.

I wish to call attention particularly to the letters addressed by Mr. Mitten to his employees urging salesmanship.

His letter of May 28, 1919, a copy of which has once before been presented to the commission, and his letter of August 13, 1919, are referred to in this connection. In both of these letters he urges courtesy to the car riders, and urges upon the men the necessity for looking out for business.

I have here a copy of the various units of publicity, as they were used through the letters, and through the advertising on the cars, and I shall pass them up for the inspection of the commission and then ask, later, to take them with me; but the exhibit which I shall have prepared will contain it in a better form than that.

As a fruit or flower of this campaign for good feeling on the part of the public and cooperation on the part of the trainmen, I wish to refer to an editorial printed in the Philadelphia North American under date of September 26, 1919. It is the only editorial of that day. It is headed: "A triumph of cooperation," occupies two columns of space of the paper, and I will submit it to the commission and a sufficient number of copies, I believe, for each commissioner to have a copy. It is a review of the cordial relations existing between Mr. Mitten and his management and the public of Philadelphia. It is as follows:

A TRIUMPH OF COOPERATION.

In the present epochal industrial controversy, projecting drastic economic and social changes, no problems are more complex than those concerning public utilities. And of these enterprises which must be operated to the satisfaction of the men, the managements, and the public, none presents greater difficulties than urban street railways.

Upon the management of such a system devolves the triple task of earning dividends upon the securities, nearly always inflated, of keeping the employees

satisfied and efficient, and of rendering adequate service to the public. The melancholy histories of the great traction systems of New York, Chicago, Boston, San Francisco, Pittsburgh, and scores of other cities show how formidable are the obstacles to success in such undertakings.

The city-traction industries of the country have been established and controlled by strong financial interests. The men directing them, successful leaders in great enterprises, have spared neither money nor effort to provide able managements. Yet in virtually all cases the investors have suffered heavy losses, the employees have been almost constantly in a state of discontent and antagonism, with frequent strikes, while inadequate service has created widespread public condemnation.

An example is the situation in New Jersey. The Public Service Corporation, which operates the trolley lines, is repeating errors committed by many other short-sighted managements. In order to obtain increased revenues fares have been raised, upon the theory that the public would be compelled to use the transportation at any price. A great outburst of public indignation, manifested even in a boycott movement and mob violence, is the result.

If this article had been written nine years ago, and were to include a list of the most shameful failures in street-railway enterprise, at the head of it we should have placed the Philadelphia Rapid Transit Co. Among the companies giving the public the most inconsiderate treatment and the worst service, paying the lowest wages and pursuing the most unenlightened policy toward employees, and possessing in the greatest degree the ill will of the community, we should have designated this corporation as preeminent.

Moreover, the Philadelphia Rapid Transit Co. at that time was a decrepit and discredited enterprise; in physical equipment and financial condition a derelict. During the 12 months just preceding the passing of the concern to the present control there was a deficit of \$1,300,000, without a cent paid for dividends on millions of Philadelphia Rapid Transit money invested, and despite bookkeeping jugglery that concealed more than \$1,000,000 in bills payable.

If we were to make a list to-day of the street-railway systems of the country giving the best service, notable for loyalty and efficiency of their employees and the good will of their communities, we should be compelled to give the Philadelphia Rapid Transit Co. first place.

What has brought about this astonishing, almost inspiring transformation? If the question were put to Thomas E. Mitten, whose genius wrought the change, and to E. T. Stotesbury, who placed Mr. Mitten in charge and backed his efforts, the answer from each man would be given in a single word, "Cooperation."

That term has come to have an elastic meaning; it has been much used, and not a little abused in discussions of industrial matters. Spokesmen for capital and labor both employ it rather as a slogan than as defining a solution they are prepared whole-heartedly to accept. But in the Philadelphia traction situation it means exactly what it says.

The foundation of the Mitten plan is confidence between the men and the management, based upon mutual interests clearly recognized and justly administered through committees representing both factors. Cooperation thus established automatically translates itself into good public service; good public service increases the business of the company; and the benefits are shared by employees and the company, inspiring continued effort toward improvement.

When Mr. Mitten assumed direction of the company in 1910 he gave his attention first to the men, the great human factor in the complex problem he had been called upon to solve. He devised at the outset a wage system based upon the principle of profit sharing. Instead of undertaking to buy labor as a commodity at the lowest price obtainable, the company announced that there would be set apart for wages 22 cents out of every dollar of gross income. This guaranteed to the men a direct, personal interest in increased business.

The proposal, although not fully understood at first, was attractive enough to allay the restlessness and discontent which had long pervaded the ranks of the traction employees and gradually stimulated them to give better service. But their interest became keener and more active when the cooperative system showed results in a rising wage scale. Prior to 1910 the pay of Philadelphia street-railway employees had advanced less than 7 cents an hour in a period of 27 years; but between 1910 and 1919 the rate has risen from 23 cents an hour to 58 cents an hour.

An essential part of Mr. Mitten's plan was the establishment of a system of collective bargaining. Here he met with his most serious difficulties. Before

he took charge, the traction employees were divided into unions and associations which vied with one another in their antagonism to the company. The dominant group was in the Amalgamated Association of Street Railway Employees, affiliated with the American Federation of Labor.

When he announced his cooperative plan, Mr. Mitten made it clear that he did not oppose labor unionism or advocate an "open shop;" but he did insist that the men should get together in one organization, through which they could responsibly carry on cooperative dealings with the corporation.

After months of explanatory discussion a vote was taken in a centrally located public hall, under the impartial supervision of representatives of the various newspapers. By a narrow margin the men declared for a trial of the Mitten plan for 12 months. At the expiration of that period there was another vote, in which an overwhelming majority was given for adoption of the plan as a permanent system. To-day more than 99½ per cent of the men are cooperative members, and the Amalgamated and other associations have vanished.

It has been under this plan that the great transformation in the Philadelphia street-railway situation has been accomplished. How a rationally conceived and justly applied scheme of cooperation works out in practice is told by irrefutable facts and figures.

Philadelphia is the only large city in the United States in which the 5-cent street-railway fare still prevails or where the management has not moved to demand an increase. It is the only large city in which the public gives cordial praise to the traction management and in which the street-railway employees are satisfied and loyal.

The results stated in figures are even more impressive. This year the number of passengers carried will exceed by 400,000,000—nearly 100 per cent—the number carried during the year immediately preceding the change in management; yet the number of men employed now is 20 per cent less than nine years ago. The enormous increase in business has been made possible in part by vast additions and improvements in the matter of equipment; but to a far greater degree the result is due to the employees. Their hours of work are no longer, and their effort no more arduous; but their efficiency has increased 98 per cent, as shown by the doubling of the number of passengers carried and a remarkable reduction in the number of accidents. And while their efficiency has risen 98 per cent, their wages have increased 154 per cent.

Amid the confusion of the far-reaching industrial changes that are underway in this country, with their phases of bitter controversy, haphazard experimentation, and destructive theorizing, understanding of the issues is difficult. But it should always be borne in mind that the most vital element in the problem is the human factor. Mr. Mitten has accomplished in the field of street-railway transportation what other experts have failed to accomplish because he has devised and made effective a practical plan for enlisting, not exploiting, labor. His procedure represents a policy which stands alone against the combined judgment of all the other street-railway managements of the country.

While they are striving to solve their difficulties by exacting greater revenues from the public, his contention is that the financial success of the urban transportation systems in the future depends not upon higher fares, but upon increased business—the selling of more trolley rides. He has put his philosophy in the sentences which have become familiar to Philadelphians:

High fares make riders walk.

Low fares make walkers ride.

More fares make low fares.

It is undeniable that thus far Mr. Mitten has demonstrated the soundness of his conception. For his management has given a constantly improving service; it has increased wages until the scale represents the average pay in the four other cities where wages are at the highest levels; it is providing an adequate sum each year for replacements; and it has raised the company from a state of virtual bankruptcy to a profitable enterprise paying 5 per cent on the investment.

These results are due to complete cooperation between men and management. It is because of cooperation that the transit employees, inspired by loyalty and legitimate self-interest, have increased their efficiency—that is to say, their production—nearly 100 per cent. This is in striking contrast to the conditions revealed in a recent statement by Mr. Atterbury that the production of Pennsylvania Railroad employees has fallen off 40 per cent.

The operation of the Mitten plan has already attracted nation-wide attention from industrial and financial experts and from the Federal Government, which is striving to help in the solution of problems of this nature. Philadelphia has the distinction of being the laboratory in which the great experiment has been worked out to success, but the basic principles are applicable to public utilities everywhere, and indeed to all industries.

Leaders of the forces of capital and labor will be wise to give careful study to this demonstration of a system which, starting with the most disadvantageous conditions, has brought immense benefits to both and to the community as well. To capital concerned, the Mitten plan has given security and prosperity; to labor it has given just treatment, higher wages, and self-respecting contentment; to the public it has given adequate and steadily improving service.

The lesson for the capitalist, the labor leader, and the consumer is plain. Philadelphia's model traction system has been achieved through increased production. That is the secret of Philadelphia's unique enjoyment of a 5-cent street-railway fare, and it is the essential factor in any effective formula for reducing the high cost of living in every other direction.

I wish also to refer briefly to the hearing in Philadelphia in 1914 before the Federal Industrial Relations Commission, of which Mr. Walsh was chairman, and which sat in Philadelphia to hear the testimony of Mr. Mitten and some of his assistants upon the cooperative plan as then developed.

To show that Mr. Mitten has been accustomed to dealing with the men as an organization, I want to submit a certificate or testimonial given to Mr. Mitten as president of the Chicago City Railway by Division No. 260 of the Amalgamated Association of Street & Electric Railway Employees of America, wherein they say:

We desire to present to you this testimonial of the sincere estimate and good will of our membership on your retirement from the presidency of the Chicago City Railway Co. We tender you this because of the harmonious relations that have existed on the part of the system during your administration.

Trusting your future will be as successful as the past, we remain,

Respectfully, yours,

ROWLAND SHELTON, *President.*

JOHN McLAIN.

EDWARD S. BECHTLOFF.

THOMAS F. BURNS.

JOSEPH J. CELLA.

Introduced and passed at the executive board meeting December 23, 1911, and ratified at the regular meeting.

Although it is a little out of the order of my talk, I wish to refer here to the condition of the Philadelphia Rapid Transit Co. and the condition of the street-railway industry in Philadelphia at the time that the Stotesbury-Mitten management came into control.

I have already referred to the labor situation.

The financial condition of the company was such that its credit was exhausted, and it was reduced to the expedient of selling the securities in its insurance fund to get working capital. Up to this time no dividend had ever been paid on the \$30,000,000 of capital stock actually paid in and expended in the construction and extension of the system.

In this emergency it was decided by the directors of the company and the influential stockholders to appeal to Mr. E. T. Stotesbury, of Philadelphia, in the belief that if he could be prevailed upon to assume responsibility for the policy and business management of the company, means might be found by him to meet its financial requirements.

Accordingly, on October 3, 1910, a petition signed by the directors and a number of the stockholders of the Union Traction Co., one of the underlying companies, and by the directors of the Philadelphia Rapid Transit Co. and some of its stockholders was presented to Mr. Stotesbury, from which I quote:

The undersigned stockholders of the Philadelphia Rapid Transit Co. and the Union Traction Co. take this method of bringing their request to you, that you enter the board of directors of the Philadelphia Rapid Transit Co., with such associates as you may select, in order to give this property not only the great practical advantage of your large experience in business and as a financier, but also because of the full measure of public confidence which will result from the participation of yourself and associates in the directorate and control of the company. This move is made with the knowledge and assent of the present officers and directors, and with the assurance that sufficient vacancies on the board will be available to enable the interests which may come in with you to control the policy and business of the company.

There is no other enterprise which touches so closely the general welfare of the city and the convenience and comfort of its citizens. This is especially true in Philadelphia by reason of the close relationship between the company and the city under the 1907 contract.

We believe that nothing will do as much to rehabilitate the company in public confidence and so add to the prosperity of the city as a management which will be recognized as having as its first consideration the city's interest.

We turn to you as the citizen who, in our opinion, can accomplish most along these lines, and we appeal to your well-known civic pride to give to the public service your services, and through it to the city the benefit of your personal and business interests and association.

Mr. Stotesbury replied, in part:

An earnest desire to advance the welfare of the general public, as well as the business interests of the city, prompts me to comply with your request. I have given thought to the problem and have sought the advice of experts in the conduct and operation of similar properties, particularly Mr. Thomas E. Mitten, who has had wide experience in such matters, and is now at the head of the Chicago Railway system.

Again, as expressive of the intent and spirit in which the new management entered the Philadelphia traction situation, I wish to quote from a letter to Charles O. Kruger, then president of the Philadelphia Rapid Transit Co., where Mr. Stotesbury says:

I desire to have my position in regard to this matter clearly understood both by yourself and the public generally. I shall undertake it solely from a desire to promote the business interests of Philadelphia and those fellow citizens whose confidence in my ability to solve this problem I appreciate and hope to preserve; but, as I accept a heavy responsibility without remuneration and at a sacrifice of time which I can ill afford to make, I must be allowed to use my own judgment, to spend such moneys as are necessary to secure the most expert advice and assistance obtainable.

Mr. Mitten was then called upon to make a report upon the situation, and he made a report wherein he urged the necessity of setting aside 15 per cent of the gross revenue for upkeep and maintenance; and he urged the immediate expenditure of about \$10,000,000 in rehabilitation, in new cars, new track extensions, and various other improvements.

Now, I wish to refer briefly to some of the concrete things that have been done under Mr. Mitten's management to improve the income.

I have already referred to the rerouting of the cars. No small proportion of the success of the management may be attributed to the daily study of traffic statistics and the consequent routing of cars to more fully and economically serve the public.

At the time of the incoming of the management in 1910 little or nothing had been done in the way of rerouting cars so as to take advantage of unified operation. There were 92 separate routes upon the system, many of which were originally established by the different operating companies in competition, resulting in waste and duplication of service.

After the rerouting of the cars, there are 76 routes, which comprise the system as now operated.

The changes have been made as rapidly as the confidence of the public and the cooperation of the employees would permit, the most recent change being the consolidation of two lines made within the last month, and resulting, we confidently expect, in a saving to the company of more than \$60,000 a year; and this combination of two lines resulting of the setting back, in the language of the men, the setting back of some 30 or more trainmen; setting them back in priority; and in spite of this, instead of opposition on the part of the men to that measure of economy, the superintendent of transportation had a complimentary expression from the men operating those two lines upon the economies effected and the common sense of joining those two lines into one. Not only that, but the joining of the two lines has resulted in improved income, increased riding, and a better gross on that one single than on the two lines as formerly operated. The passenger receipts per car-hour have increased from \$2.19 in 1910 and \$3.48 in 1918.

Passenger receipts per car-mile have increased from 27 cents in 1910 to 38 cents in 1918.

Much light is thrown upon these comparative results by the fact that the average speed in miles per hour for the system has increased from 8.08 miles per hour in 1910 to 9.06 in 1918. This increase in speed has been accomplished through improvement in various factors, as for example, reduction in the number of stops, the cutting down of the time consumed at each stop, through the introduction of the near-side and center-exit doors and the equipping of all cars with door-operating and time-saving devices.

Prior to 1911 the time-table department was operating many lines upon all-day solid tables, meaning that a line having been designated as 5-minute lines, the cars would be scheduled for a 5-minute headway all the time, with perhaps trips for the morning and evening rushes; but in the main the schedules were not based upon authentic checks to determine the varying riding characteristics of each line at the different hours of the day. The elimination of wasted effort in the schedule under the present management has included a very close adjustment of car schedule to the traffic of the line, and on some lines the headways are scheduled to change as often as five or six times in the 24 hours, with entirely new schedules for Saturdays, for Sundays, and for holidays, based upon traffic observations which were made in several ways by special slips turned in by the conductors showing the maximum number of rides on the car each trip by trained observers placed at strategical observation points along the line, who report the number of passengers boarding, the number alighting, and the number of passengers on the car at these points; analytical studies of the transfers issued and collected at dominating points; and by these and other means the riding

characteristics of each line, for each hour of the day, for different days of the week, and for different seasons of the year are determined and are checked from time to time.

The car service is then scheduled to put the cars upon the lines when and where the riding public needs them. A typical line would show a definite headway from the early morning hours, this headway becoming more frequent to meet the morning rush, then becoming longer to a minimum for the hours of, say, between 10 and 12 in the middle of the day, and then becoming more frequent, the interval between the cars reaching their greatest frequency at the peak of the evening rush, and then tapering off again until 7, when there is a slight increase to take care of the theater and after-dinner traffic; again becoming less frequent from, say, 1 to 12 at night, and falling into the "owl" or all-night service.

Traffic analysis is, of course, not peculiar to Philadelphia, but the maintenance and accuracy of these studies are perhaps unique, as is also the success attained by the present time-table experts in dividing the car runs into car hours to meet the desires of the majority of the trainmen.

Here is where cooperation again comes in. Each new schedule, before it becomes effective, is submitted to the cooperative committeemen from the depot concerned and is subject to scrutiny by the trainmen involved, the declared policy of the department being that the cars must be placed upon the streets exactly in accordance with the needs of the traveling public, but the division of the car runs into crews and crew runs is accomplished to meet, so far as possible, the convenience of the men who, it may be said, now fully appreciate that increase in their wages is closely affiliated with the success of the management in fitting the car service to the traffic without what we call wasted effort.

I submit, as part of the study in this matter, a paper read by our traffic engineer, Mr. R. H. Horton, a description of the traffic studies conducted by the Philadelphia Rapid Transit Co. We consider it an important contribution to the literature upon the subject.

The skip-stop was installed in cooperation with the Federal Fuel Administration, in order to conserve coal by reducing the number of stops, upon the theory that the electrical energy consumed in the acceleration or starting of a car is greater than that required to keep the car in motion after having gained momentum.

The application of the skip-stop plan has resulted in reducing the number of stops in the city by more than 1,700 out of a total of something less than 6,000. It is difficult, if not impossible, to estimate the total savings from this plan, but a definite saving of more than \$100,000 in pay rolls, due to the conservation of the time of the operating crews, and a saving of \$300,000 per annum in electrical current has been demonstrated beyond doubt. By comparison of the per car-mile cost of operation for a calendar month before the skip stop was installed, with the same cost for a like period after the installation, the company's engineers estimated a saving of 1.7 cents per car-mile, or a total saving of \$1,318,000 per annum; and they estimated an ultimate saving of approximately \$100,000 per annum additional, due to releasing equipment from service.

I have a very interesting study upon that here, which I shall submit, our engineers' detail working out of that saving.

The CHAIRMAN. Mr. Veeder will appear before the commission this week and discuss the skip-stop plan.

Mr. JOYCE. Very well. I have a memorandum here to refer briefly to the savings effected by the safety campaigns of the company.

Mr. DELBRIDGE. Your honor, would the gentleman object to telling us what the cost per car-mile is in Philadelphia of operating? He spoke of the safety.

Mr. JOYCE. 28.59 cents. Perhaps the most interesting development in Philadelphia is this campaign for safety and for accident prevention.

Commissioner MAHON. Did you say you had a detailed statement on skip-stops which you were submitting, which you did not read?

Mr. JOYCE. Yes. For the eight years ending 1910—that is prior to the Mitten management—6.08 per cent of the gross earnings of the company was spent for accident claims, and as a result of accidents there was an unpaid liability not estimated involved in a total of 4,953 unsettled suits at December 31, 1910. With the introduction of modern equipment and the equipping of the cars with every known safety device, a crusade was undertaken to reduce the number of accidents and particularly accidents to children. A special bureau was created under the direction of a capable young woman, who soon became known throughout the city as "Miss Safety First." Both school authorities and the police department rendered cheerful and enthusiastic cooperation. A system of lectures to school children on safety devices was devised and executed, and more than 100,000 children are addressed annually on safety. This young woman goes about from school to school, assembles the children in their assembly rooms and lectures to them on safety precautions. She organizes the boys into safety-first scouts and drills them so that at the letting out of school each boy in that scout squad knows a certain point at which he is expected to station himself to protect his fellow school children in crossing the streets.

During the eight-year period of this management the accident cost was reduced from 6.08 per cent in 1910 to 3.4 per cent of gross earnings in 1918, and the number of pending suits was decreased from 4,953 to 2,524 at December 31, 1918.

This reduction in accident costs represents a saving of \$5,392,000. While the police reports for 1918 show an increase of 1,980 street accidents over 1911, the records of the Philadelphia Rapid Transit Co. show a decrease of 752 trolley-car accidents in the same period.

In 1911 there was one accident for every 18,640 passengers carried, while in 1918 the ratio was one accident to every 41,622.

The crusade against accidents amongst children during the past four years resulted in a showing of 32 fewer deaths from accidents to children as compared with the preceding four years.

Under the head of "fire insurance" I have a memorandum to note that the company in 1910 carried \$18,500,000 of fire insurance at a premium of 50 cents per hundred. Adequate and effective inspection has reduced this cost to 25 cents per hundred, and in this way a saving of \$25,000 per annum net, after paying the cost of inspection, was accomplished and many collateral benefits derived

from the regular and careful inspection of the property. From 1911 to 1918 over \$600,000 was paid in premiums to insurance companies, and the company received in return less than \$60,000 for fire losses.

At December 31, 1918, the company assumed 33 per cent of its fire risk. A careful survey of the property demonstrated that the greatest possible loss that could be sustained in one fire would not exceed \$250,000. The insurance fund discontinued in 1910 to aid the company in meeting obligations has been reestablished, with assets of over \$1,000,000.

Under "Car advertising," I wish to refer to the fact that in 1910 the rapid-transit company obtained an annual revenue of \$160,732. In 1919 it will get \$300,000 from this source alone. That is due to careful study of the advertising spaces upon the cars, better bargaining for the spaces, and better salesmanship in disposing of it.

Commissioner MAHON. Does the company control that or lease it?

Mr. JOYCE. The company leases it, but under very careful supervision.

I wish to refer to the Willow Grove Park, perhaps the only traction park in America that is showing a profit. To the north of the city at a point reached by three lines of track and by several routes of cars the company maintains a resort known as Willow Grove Park, unique in supplying, free of charge, concerts by Sousa, Pryor, Conway, Franko, and others. This park, depending entirely upon the income derived from the amusement concessions, was a constant money loser up to the incoming of the Mitten management, the loss running anywhere from \$50,000 to \$100,000 per year. For the year 1918 it earned a surplus of \$103,000. One hundred thousand persons in a single day is not an unusual attendance. We expect this park to show an earning of over \$150,000 for this year.

I wish at this point to refer, although it is a little out of order, to a study made of the psychology of the round-sum charge for admission to amusements as bearing upon the round-sum charge for street-railway transportation.

At this park the amusement enterprises are leased out to concessionaires and they have full freedom to fix the rate of admission to their amusement. The net result of all of the Willow Grove concessions shows 13 per cent increase over last year. The two carrousals, which are the 5-cent ride with 1 cent for war tax, making it 6 cents, showed for No. 1 a loss of \$1,977, as compared with the preceding year, and for No. 2 a loss of \$3,399, as against its keeping up with last year. These figures are significant that 6 cents does not always bring in more than 5 cents. Now, there is a place where the public were free without any necessity of every-day life to go or not to go into these amusements. The addition of a cent for admission there resulted in a loss in one case of over \$1,900, and in the other case of over \$3,000, as compared with the preceding year with an increase in the number of people attending the park.

Commissioner GADSDEN. What year was that—1918?

Mr. JOYCE. 1919 compared with 1918.

I wish, now, to refer to statistical tables which were specially prepared for submitting to this commission, but which had been completed and just about ready when Mr. Mitten was ready to present

his case in the Three-Cent Exchange Ticket complaint before the public-service commission and which were presented by him there to that commission and then bound in the booklet covering his testimony, a copy of which I have here and copies of which will be given to each commissioner.

Table A, statement showing new capital invested in the street-railway properties operated by the Philadelphia Rapid Transit Co. since January 1, 1911. This table shows in this period a total of \$26,231,410 has been expended in extensions and improvements, of which \$14,540,000 was contributed by the stockholders, \$17,066,000 obtained from the proceeds of loans, \$3,913,151 advanced by the United States Government to provide additional facilities for war industries, \$3,551,246 was appropriated out of income, and \$1,686,472 expended out of the renewal funds.

This shows that during this period it has been necessary to make continuous extensions and to keep pouring money into the property in order to keep up the public service. That in spite of the fact that in 1910, as Mr. Mahon told you, Philadelphia was considered to be much overtracked, much overdeveloped in the way of street-car facilities.

Table B, which is a condensed income account and statement of exchange-ticket revenue from 1910 to 1919, shows that for the year 1910 the gross earnings were \$19,232,622, while for the six months ended June 30, 1919, a half year, the gross was \$17,439,479.

Of the gross income for this six months' period, \$744,000, or 4.2 per cent, was obtained from the sale of the three-cent exchange or transfer ticket.

Table C, statement of operating expenses, shows the upward trend of operating costs since 1910 stated in costs per car-mile. This statement shows that operating costs have increased from \$10,655,000 in 1910 to \$18,498,000 in 1918, and that the total operating expenses for the six months ended June 30, 1919, were \$10,643,000 or almost equal to the operating expenses for the entire year 1910.

In 1910 the operating expenses per car-mile were 14.51 cents; for the first six months of 1919 they averaged 24.58 cents.

General expenses continued to decrease from 1911 to 1915 and the war increases in general expenses in 1916 brought them to only slightly more than they were in 1910. This shows conclusively that the cost of management has not increased in proportion to the other costs.

Mr. WARREN. What was your statement as compared to 1910 for 1916? Did you say the general expenses—

Mr. JOYCE. 1910 to 1918.

Mr. WARREN. 1918?

Mr. JOYCE. 1918. You will find that in the table.

Mr. WARREN. I see it now, Table C-1.

Mr. JOYCE. Yes. Table C-2 is a study of costs of particular items going into the operation and construction of the road, comparing costs in 1912 with costs in 1919. The per cents of increase are shown in the right hand column. You will note that they range from some as low as 8 per cent to as high as 232 per cent.

Table C-3 is a tabulation of wages paid to trainmen, motormen, and conductors, comparing 1910 with 1919. Surface trainmen 23

cents in 1910, 58 cents in 1919. Elevated motormen 26 cents in 1910, 61 cents in 1919. Conductors 23 cents in 1910, 58 cents in 1919. Guards 19½ cents in 1910, 56 cents in 1919.

I have another table showing that in great detail that I shall submit.

Table D shows the classes of fares and the revenue therefrom January 1, 1910, to June 30, 1919. You will there observe the comparative insignificance of the revenue obtained from the 3-cent exchange.

Table E—

Commissioner WEHLE. What is the basis of the 3-cent exchange? Is that a regular transfer charge?

Mr. JOYCE. It is a transfer charge which we inherited from the former management and which was in turn inherited by them from the days of competition in Philadelphia when the lines were operated by many different companies and when to go from the line of one company to the line of another you would have to pay 3 cents. A little later on I will refer at length to that in quoting Mr. Mitten's statement on the subject before the public-service commission.

Commissioner WEHLE. How does the number of passengers carried on the free transfer compare with the number of passengers carried on the 3-cent transfer?

Mr. JOYCE. I can answer that in this way—that 17 per cent of all passengers are carried on free transfers and 6 per cent of all passengers are carried on the 3-cent exchange.

We submit also a table showing fare adjustments in various cities. This was prepared by our statisticians, and we considered that it would be of interest. It refers particularly to fare changes in the State of Pennsylvania, but it refers also to other fare changes, in such cities as Baltimore, Boston, Chicago, Cincinnati, Cleveland, Denver, Detroit, Kansas City, Los Angeles, Milwaukee, New Jersey, and then on to the cities in Pennsylvania.

Commissioner WEHLE. What is the date of this Table F?

Mr. JOYCE. We made an effort to bring it up to the date of the hearing on the 3-cent exchange, and that was September 19. It may not be exactly up to that date.

Commissioner WEHLE. I notice the Cincinnati Traction Co. is set out here as having a 6½-cent ticket and a 7-cent cash fare. Is that the present arrangement?

Mr. JOYCE. I am not able to answer you on that. I did not prepare that table. It was prepared by our statisticians, but I shall, if you wish, obtain that data and have it supplied to the commission.

I had intended in my scheme of presentation of this matter to cover the relationship of the company with the city in one place, and I have now arrived at the place where I wish to go into that.

I shall first give you a short description of the situation in Philadelphia before the 1907 contract, which is now the single franchise under which we are operating in Philadelphia.

While under the laws of Pennsylvania street railways are chartered by the State, they obtain their rights to operate on the city streets from the local authorities and only upon such conditions as may be reserved in franchise grants. From the very beginning, to secure some remuneration for the privilege of constructing and operating street railways, the city imposed three obligations, namely,

first, to pave, repave, and repair the streets which they occupied. Second, to pay to the city a tax on annual dividends in excess of 6 per cent. And third, to pay a license fee for each car intended to be run.

The original franchise ordinances are supplemented later by other ordinances, general in their nature, confirming and defining these obligations.

Thus in 1857 an ordinance was passed requiring that all railroad companies as aforesaid shall be at the entire cost of paving, repaving, and repairing that may be necessary upon any road, street, avenue, or alley occupied by them.

In 1876 the supreme court defined the obligation of the companies under these ordinances, as follows, quoting from the supreme court's decision:

That these companies are bound to keep in repair the entire roadway of the street which they occupy, not only the part between the rails, but the whole roadway from curb to curb. Whatever streets they traverse they are bound to pave throughout their whole route and that not partially but wholly and thoroughly. It is a part of the price which the legislature exacted for the privilege granted.

In 1892, when ordinances were passed granting the companies the right to use electric traction, the grant was almost invariably accompanied by the requirement that the company should pave the streets from curb to curb with modern paving; and in 1896 the city of Philadelphia was considered the most poorly paved city in the United States, the result being that the companies were at the cost of repaving the entire city, because if you will take a map of Philadelphia upon which street-cars run it looks like a gridiron—every street has a track on it.

In 1896, four years later, it was estimated by the city that repaving done by the companies since 1891 cost them—the companies—\$9,000,000. That estimate was made by the then superintendent of the bureau of highways of the city of Philadelphia.

The dividend tax has been a continuing source of revenue to the city. This tax is levied on all dividends in excess of 6 per cent. Some were obliged to pay 6 per cent on the entire dividend while others were required to pay 6 per cent only on the excess of the dividend above 6 per cent.

The third form of obligation is the tax on cars of \$50 per car with an additional tax of \$50 on each car regularly operated on a line which crosses a bridge owned by the city.

The companies were also obliged to keep streets which they operated on free from ice and snow in the winter.

In addition to these city charges, the companies are subject to a State charge of 0.8 per cent on their gross receipts, 0.5 per cent on the assessed value of their capital stock, and 0.4 per cent on their corporate loans, which, while levied on the bondholders, is usually paid by the companies.

The contract of 1907: In 1907 the company entered into an agreement with the city for a term of 50 years revising and confirming the various franchise grants that had theretofore been made by the city to the company and its predecessor and lessor companies. This contract provides among other things that the company shall be relieved of its obligations to pave, repave, and clean the streets of the

city, and of its car-license fees, and that in lieu thereof the company should pay to the city a sum of money amounting to \$500,000 per annum for the first 10 years of the contract and increasing by \$50,000 per annum for each additional 10-year period until in the final period of the term the payment will be \$700,000 per annum. The company also agrees to pay into a sinking fund for the use of the city in acquiring the property of the company an annual sum amounting to \$120,000 per annum for the first 10 years and increased by \$60,000 per annum for each additional 10-year period until, in the final period of the term, the sinking fund payments will be \$360,000 per annum.

The paving and sinking-fund payments under this contract now amount to \$670,000 per annum and during the last 10-year period will amount to \$1,060,000 per annum.

The city reserves the right after 50 years, upon six months' notice, to purchase the property of the company by paying the par value of the stock of the company and assuming the liabilities of the company, and this right will be assignable by the city and may be put up at auction. The company reserves its franchise as a corporation and reserves the right to become a bidder for that franchise, a bidder for the right to operate the street-railway lines.

The contract of 1907 also provides that the company shall call on its stockholders for certain assessments for improvements. That the company shall submit all future increases in its capital stock and funded debt to the city for approval. That the city may determine that new lines of street railways, subway or elevated railways should be constructed and that if the company should fail or decline to construct and operate the same the city may offer the right to construct and operate to others. That the mayor of the city and two citizens designated by the council shall be members of the board of directors of the company. That the company shall file with the city council statements of income and that the city comptroller shall examine the books of the company to verify the same. That the city shall share with the company all net earnings over and above 6 per cent per annum upon its capital stock. That the company shall surrender its franchise for the construction of a subway in Broad Street.

Commissioner WEHLE. Will you repeat the sentence before that, about the sharing of profits?

Mr. JOYCE. Above 6 per cent on the stock if the company should ever earn that much, the city shall share.

Commissioner WEHLE. Share equally?

Mr. JOYCE. Yes; share equally. I shall submit a copy of the contract for you to study in detail.

The company had the right to build subways in Broad Street. Under the 1907 contract it surrendered that right. The city confirmed the various franchises of the company and its predecessor and lessor companies and surrendered any right of repeal or right of purchase or taking it may have under such franchises.

That is a brief summary of the provisions of that contract. The booklet which I have here descriptive of the Three-Cent Exchange case contains a copy of that contract.

Commissioner MAHON. How does the city elect its members on the board of directors?

Mr. JOYCE. They are designated by the mayor.

Commissioner MAHON. Appointed by him?

Mr. JOYCE. Appointed by the mayor.

The Three-Cent Exchange case grew out of an effort on the part of the business men's association of what is known as the northwest section of Philadelphia, a limited area lying between Schuylkill River and Broad Street. The business men in that section got the idea that their section was discriminated against in the matter of the 3-cent exchange as compared with the people in West Philadelphia and other sections of the city, and they brought their complaint to the public-service commission on the basis of discrimination. The commission ordered hearings on the matter, and the final hearing was held in Philadelphia on September 19. The company, I believe, demonstrated beyond doubt that there was no actual discrimination against the northwest business district as compared with the other districts of the city that might reasonably be compared with it, and Mr. Mitten took that occasion to present to the public-service commission his view upon the 3-cent exchange. That view is contained in his statement to the commission which is printed in this booklet at the front of the book.

He reviews the history of the 3-cent exchange and refers to the exhibits that are submitted. He shows there that the following payments are now made to the city annually under the 1907 contracts: One hundred and fifteen thousand dollars franchise tax—that is, the dividend tax, the tax upon dividends above 6 per cent; and those are the dividends paid by the underlying companies out of the rentals received from the Philadelphia Rapid Transit Co.—\$550,000 cost of paving and street cleaning and the car-license fee; \$120,000 sinking fund; making a total of \$785,000 per annum.

Mr. Mitten there offered to discontinue the charge of 3 cents for exchange tickets which now brings in a revenue of \$1,600,000; he offered to discontinue that charge and to give up that revenue of \$1,600,000 if the city would agree to give up its annual charges for street cleaning, sinking fund, and franchise of \$785,000.

It was thought by the attorneys in that case that Mr. Mitten was jeopardizing his Three-Cent Exchange Ticket case by making any such offer, but he preferred to take advantage of that opportunity to put himself upon record as opposing the 3-cent exchange. Because he says that it sets up artificial dams or barriers to the natural flow of the traffic. We find, for example, that people instead of transferring, if they go from point A to point B, and point C is the reasonable place for them to transfer—if that is a 3-cent exchange point they will not transfer there, but they will ride around for perhaps 15 minutes until they reach a free transfer point and there transfer, causing jamming of the traffic due to that toll of 3 cents for exchange tickets.

Commissioner GADSDEN. The proposition is to make these exchange places free transfers?

Mr. JOYCE. Making the exchange places free transfers, and then the flow of the traffic will be normal and natural.

Now, as a light upon that 3-cent exchange, I wish to direct the attention of the commission to the report of eight years' operation which you will find printed in the Three-Cent Exchange booklet, and to a table—

Commissioner WEHLE. On what page?

Mr. JOYCE. The booklet is not paged throughout, but you will find the eight years' report toward the back of the book. It is the last thing printed. On page 8 of that report you will find an analysis of the fare reduction there, showing the relationship of the 3-cent exchange to the total passengers carried, which shows that the 3-cent exchange in 1918 was obtained from 43,000,000 passengers, which is 5.70 per cent of all the passengers; free transfers were given to 130,000,000, 17 per cent of the total.

I wish there, too, while we are on that table, to call attention to the column containing the fare per passenger beginning with 1910 at 4.13 cents and gradually decreasing as the number of free-transfer places were increased.

You will observe an increase in the free-transfer points from 210 in 1910 to 320 in 1918, and a decrease in the 3-cent exchange points from 655 in 1910 to 580 in 1918.

You will observe that the fare per passenger has decreased from 4.13 in 1910 to 3.91 in 1915. It remained at 3.91 in 1916 and 1917, and went up to 3.98 in 1918; and the only way that we can account for that increase is that prosperous war workers no longer care to take the 3-cent exchange at the 3-cent-exchange points, but the 2 cents is not worth enough to them to ask for a 3-cent exchange, and they would rather pay another nickel on the next ride. That is the only way we can account for that; and our traffic men make that accounting for it.

Mr. WARREN. You mean they do not care to take the free transfers, do you not, Mr. Joyce? I notice your number of free transfers actually decreased in that year.

Mr. JOYCE. That is true, Mr. Warren. That element is also mentioned as a reason by our traffic experts.

Commissioner WEHLE. Will you give us a few points, Mr. Joyce, about this contract of 1907, before you leave it too far behind?

Mr. JOYCE. The contract of 1907 you will find printed in the Three-Cent Exchange booklet after the statistical tables that were introduced.

The statistical tables run up to page 18, and then next appears the contract of 1907, which is again paged independently from one to nine. It is a comparatively brief document, containing only nine pages of printing.

Commissioner WEHLE. In connection with that contract I should like to ask you what kind of accounting supervision has been actually developed by the city of Philadelphia to control or to check up the accounting of the railway?

Mr. JOYCE. Each year the city of Philadelphia, through its comptroller, employs a firm of public accountants. The firm that has so far represented them in that respect is the firm of Lybrand, Ross Bros. & Montgomery, of Philadelphia. The city sends Lybrand, Ross Bros. & Montgomery into the office of the company once a year to check up its income account and the additions made to the property accounts, and to make a general audit of the books of the company; and the accountants report to the comptroller, and the comptroller in turn reports to council, and that report is printed and issued as a public document.

In the administration of the 22 per cent fund of the street-car men under that 1911 agreement the carmen accepted the audit of the city's auditors of that fund, and the carmen appointed a committee to sit with the city's auditors when they were compiling their final figures and to ask questions with regard to charges against that fund.

There is great confidence on the part of the public in that audit. It is accepted in Philadelphia as a thoroughgoing audit. The standing of the firm of Lybrand, Ross Bros. & Montgomery is a factor in that, as well as the standing of the present city comptroller of Philadelphia, who is regarded as a leader among city accounting officials in the United States.

Commissioner WEHLE. Does the contract give any regulatory power to the city in connection with the audit, or only a reporting power?

Mr. JOYCE. A reporting power only.

Commissioner WEHLE. In connection with extensions, does it in any way undertake to limit the affirmative power of the company to make extensions?

Mr. JOYCE. No; so far as I know it has not. There have been very cordial relations between the city and the company in that respect.

The city undertook, in 1913 and 1914, during the administration of Mayor Blankenburg, the construction of a vast system of underground railways, and appropriated money, obtained special legislation, and approved and issued a special bond issue, running over \$100,000,000. That is discussed and referred to in the Eight-Year report at page 15.

The city went ahead with this work, and did a lot of work under the city hall in Philadelphia, in the construction of stations, underground stations, and beginning the construction of its subway in Broad Street. Its plans were very ambitious, and it entered into a contract with the Philadelphia Rapid Transit Co. for the operation of those subways when completed.

That contract was practically forced upon the rapid transit company. The rapid-transit company was not in sympathy with the plan. The officials of the rapid-transit company recognized that no rate of fare that could be charged would make those subways pay. However, it was obliged to enter into the contract.

The contract was submitted to the public-service commission, and was before that body for nearly a year. Finally the public-service commission disapproved the contract; and it throws the thing back now to where it was before the contract was started, with the city left with a big investment in underground tunnels, a big liability for further construction, and with an elevated railway to Frankford about 5 miles long, stopping short, by about half a mile of connecting with the elevated of the Philadelphia Rapid Transit Co., and now in the position of having to deal with the Philadelphia Rapid Transit Co. for the operation of the Frankford elevated.

All of these questions are now in an unsettled state. Mr. Mitten expects to go before council this year with a proposition for settling some of them, the 3-cent-exchange-ticket question particularly; and since the city is going ahead with the completion of the Frankford

elevated, the time is not long when the company will have to enter into contract relationship with the city for operation of that, because it would not be possible to operate it as a separate thing.

Commissioner WEHLE. Is the Market Street subway owned by the city? Was it built by the city in the first instance?

Mr. JOYCE. It was built by the company and it is owned by the company.

Commissioner WEHLE. The Broad Street subway, which has been begun, running under the city hall and up and down Broad Street, north and south; that is being built by the city?

Mr. JOYCE. By the city; yes.

Commissioner WEHLE. Has there been any attempt, or will there be any attempt, to levy assessments against property holders for accretion in value of their holdings due to the building of the new subway and elevated to Frankford?

Mr. JOYCE. I do not know. I have not heard it mentioned.

Commissioner WEHLE. Has there been any study or survey made of the situation with reference to such a plan as that?

Mr. JOYCE. There has been a study made for the sake of comparison. The Real Estate Board of Philadelphia made a study of the increase in properties in West Philadelphia due to the construction of the Market Street elevated; and they estimated that property values have increased \$130,000,000 in West Philadelphia due to that construction, and that therefore a like increase in property values in Frankford will result from the construction of the Frankford elevated and the operation of it.

Notwithstanding that, the Market Street elevated and the subways have never paid 6 per cent upon the investment.

Commissioner WEHLE. You mean notwithstanding the fact that the property values have increased so greatly, the line itself which created such property values has never paid for the investment?

Mr. JOYCE. That is right.

Commissioner WEHLE. And yet the accretion in property values has been very greatly in excess of the cost of the subway?

Mr. JOYCE. Yes. In other words, the rapid-transit company made West Philadelphia without getting adequate return upon its investment.

The CHAIRMAN. We will take a recess until 2 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 p. m.)

AFTER RECESS.

STATEMENT OF MR. C. J. JOYCE—Continued.

The CHAIRMAN. You may proceed, Mr. Joyce.

Mr. JOYCE. I wish to give at this point some general data that will perhaps answer questions with regard to the situation in Philadelphia; a brief historical sketch of the street railways in Philadelphia.

The history of local transportation in Philadelphia begins in 1831 with the introduction of stagecoaches rendering hourly service from 8.30 o'clock a. m. until 4.30 o'clock p. m. on Chestnut Street. This was followed by others and the omnibuses continued as the only means of transportation until January 20, 1858, when the first street-car line was opened in the face of much opposition.

During the years 1857 to 1874, 39 separate passenger railway companies were chartered to operate in Philadelphia. Most of these companies constructed their lines and operated independently. However, they early realized the benefits of combination and formed an association known as the board of presidents of city passenger railway companies, for the regulation of competition. Some actual consolidations took place, and in 1876 there were 17 operating companies in Philadelphia, with a total of 289 miles of track. In 1883 one company controlled 70 miles of track and another 44 miles.

With the coming of electric traction came a great impetus toward consolidation on a large scale. In 1895 the business was divided among only four companies and in 1898 one company controlled all the lines, save one, which operated 24 miles. This consolidation was created principally upon a network of leases with but few actual mergers of corporations, the original companies continuing in existence and receiving rentals for the use of their properties, which they in turn distributed to their bond and share holders as interest and dividends.

The Philadelphia Rapid Transit Co. was formed in 1902 with a capital stock of \$30,000,000 to lease and operate the properties of all of the then existing street-railway companies, to make extensions to the system and, among other things, to construct and operate a system of subways and elevated railways. The subway and elevated were commenced in 1907 and were fully in operation in 1910.

The Philadelphia Rapid Transit Co. has a practical monopoly of the street-railway business in Philadelphia. Its surface lines comprise 638 miles of single track, occupying 450 miles of streets and highways. It has $6\frac{1}{2}$ miles of subways and 17 miles of elevated railway, single-track measurement. The elevated railway is located on Market Street, west of the Schuylkill River, except for a small portion at the terminal on the Delaware River. The subway is located entirely on Market Street, east of the Schuylkill. The elevated trains, commencing at the Delaware River terminal, descend to the subway and come to the surface at the Schuylkill River, ascending to the elevated structure west of the river over a bridge owned by the company.

Prior to 1913, the company generated all of its power in four large power houses. Since 1913 it has been taking a continually increasing portion of its power from the Philadelphia Electric Co. In 1918 the company generated, in its own power houses, 203,143,891 kilowatt hours of electric current and it bought during the same year from the Philadelphia Electric Co. 143,374,863 kilowatt hours. The company owns 2,785 cars and operates 2,667. During the year 1918 the system carried 741,140,866 passengers, operated 85,318,787 car-miles, and 9,576,108 car hours.

The rate of fare is 5 cents. At 320 points of intersection free transfers are issued and at 580 points a charge of 3 cents is made for transfers. The average fare per passenger in 1918 was 3.98 cents.

Philadelphia has a population of approximately 1,800,000. The rapid-transit company also serves a suburban population, which brings the total population of the territory served to approximately 2,000,000. The area of the city is 129 square miles. The area of the territory served is 169 square miles. The principal portion of the

city lies between the Delaware and Schuylkill Rivers, but for upward of 15 years there has been a strong tendency for the population to locate west of the Schuylkill River.

East of the Delaware is the city of Camden, N. J., not served by the company.

Philadelphia is an important market, seaport, and financial center. It is preeminently a manufacturing city. The principal industries are textile mills, shipyards, iron and steel works, locomotive works, oil refineries and car works.

The Hog Island shipyards of the Emergency Fleet Corporation are adjacent to the city on the Delaware River and the League Island Navy Yard is within the city limits.

To the south of the city are Eddystone, Essington and Chester on the Delaware River. Here are located the Westinghouse Works, and the Baldwin Locomotive Works which, during the war, attained great proportions as manufacturers of munitions.

The topography of Philadelphia is flat, and from this standpoint presents little or no obstacles to street-railway operation. Its streets, however, are narrow and are laid out mostly at right angles. Only a few streets are wide enough to permit of double tracks.

The people live in individual one-family houses there. There are but few houses of the flat or apartment-house type. This tends to a thinning out or spreading of the population as compared with the highly congested conditions in some other eastern cities.

I wish, in addition to the booklets that have been introduced and referred to during the testimony, to place before you the cooperative plan of 1911 as officially issued by the company.

We have already presented the cooperative plan of 1918, the contract of 1907 with the city, the eight-year report, the eight-months' report, and I wish also to direct attention to the letters printed in the Three-Cent Exchange booklet exchanged between the members of the committee of council and the heads of the street-railway system in 1911, when there was before council the proposition to approve an issue of \$10,000,000 of bonds to finance extensions.

The CHAIRMAN. You referred to a contract in 1911. In what respect does that differ from the present?

Mr. JOYCE. 1907.

The CHAIRMAN. 1907?

Mr. JOYCE. That is the one existing now.

That is all that I have prepared to submit, Mr. Chairman, and I wish to say to the commission that we are ready to supply any additional data that the commission may desire, that they may think of now or that they may think of later.

The CHAIRMAN. You spoke of the turnover in 1918 being very much larger than in prior years. Have you figures to show what per cent of the men who left your service entered the service of the Government?

Mr. JOYCE. I think we have that data. I have not it with me, but it is available, and we will gladly supply it.

The CHAIRMAN. Will you also give the per cent of men who went into other lines of work, such as the Hog Island shipyards?

Mr. JOYCE. I am not so sure that we would have that data, Mr. Chairman, but such as we have we will be glad to supply to you.

The CHAIRMAN. Did many of your men enter that service?

Mr. JOYCE. Yes; I believe that quite a number of our men were attracted to the war industries, but our men were not attracted in that direction in the same proportion that men were attracted to some other fixed industries in Philadelphia; at least, we have been given to understand that, and to believe it from the contact of our managers with the managers of other industries in the city.

The CHAIRMAN. The wages in the Hog Island yard were very much larger than those paid by your company?

Mr. JOYCE. Yes; not only in the Hog Island yards, but in the Eddystone and Essington munitions factories. They were paying almost any wages to skilled mechanics, or men who had any skill at all to pursue mechanical work, to operate mechanical equipment, and our motormen were qualified for some of that work.

The CHAIRMAN. Referring to your plan of cooperation: You clearly pointed out how the employees themselves select their representatives. I am not sure that the testimony shows how the company selects its representatives and from whom they are selected.

Mr. JOYCE. The company's representatives are selected, presumably by the president, but actually they consist at each barn of the superintendent and the assistant superintendent. That is generally understood—that those are the two men who will represent the barn.

The CHAIRMAN. Does the company have the exact number of representatives that the employees have?

Mr. JOYCE. Yes. They are matched evenly on each committee.

The CHAIRMAN. Your plan also contemplates an arbitration board to decide questions that can not be settled by the employees and the industry?

Mr. JOYCE. There are questions on appeal from the general committee.

The CHAIRMAN. From the general committee?

Mr. JOYCE. Yes.

The CHAIRMAN. How many questions have been referred to an arbitration board during the Mitten-Stotesbury régime?

Mr. JOYCE. None.

The CHAIRMAN. Then there are no questions undisposed of?

Mr. JOYCE. No. Most of the questions are decided in the departmental committees. Very few of them reach the general committee.

The CHAIRMAN. What percentage of the questions get to the general committee?

Mr. JOYCE. I can not answer that, but I can obtain that data for you.

The CHAIRMAN. Has the general committee the right to consider questions which have not been before the local committee?

Mr. JOYCE. Yes. There is no limit upon the questions that may rest with the general committee.

The CHAIRMAN. Is there anything in your plan which prevents strikes?

Mr. JOYCE. Nothing specifically. The plan itself is the great safeguard against that kind of trouble. Troubles that usually lead to strike, such as dissatisfaction with working conditions, are settled in the branch and departmental committees.

The CHAIRMAN. The employees have the right to strike if they choose to exercise it?

Mr. JOYCE. Oh, yes. There is no restriction placed upon the men in that regard. There is no restriction placed upon their organization. They are free to organize if they please.

The CHAIRMAN. Are they permitted to join the American Federation of Labor?

Mr. JOYCE. They are.

The CHAIRMAN. Does this plan of cooperation lead to radical or conservative judgment by the men?

Mr. JOYCE. To conservative judgment, I would say.

The CHAIRMAN. Since when did your company begin to pay \$20,000 a month into its insurance or protection fund?

Mr. JOYCE. I think within the last two months. That is conditioned upon the men's maintaining a membership of 95 per cent of the total eligible. That is to keep the interest in that association, and to keep the men keyed up to keeping up that membership.

The CHAIRMAN. You formerly paid \$10,000 a month?

Mr. JOYCE. Yes.

The CHAIRMAN. During that time the men paid \$1 per month into this fund?

Mr. JOYCE. Yes.

The CHAIRMAN. Are they paying the same amount now, when you pay \$20,000 into the fund?

Mr. JOYCE. Yes; there has been no increase in the dues.

The CHAIRMAN. Will this raise a larger fund than is required for the purpose?

Mr. JOYCE. That I can not tell. It will certainly put off the day when the men would have to contribute any further to the fund.

The CHAIRMAN. Has your testimony clearly shown the benefits which employees get—that is, the sick benefits and other benefits which they get—from this dollar which they contribute into the fund?

Mr. JOYCE. That is perhaps most pointedly shown in an exhibit of circular letters issued during the "flu" campaign, giving a list of the number of men who lost their lives in that epidemic and who had been paying dues into the fund only a few months, the estate of each of whom received \$1,000.

A circular issued in October, 1918, shows that since September 1, 1918, to the date of the issues of that circular, 31 employee members who have died since December 1 are fully insured and will receive the payment of \$1,000. At that time 13 had already received payment.

The CHAIRMAN. Your employees are paid 58 cents per hour?

Mr. JOYCE. Yes; that is the maximum.

The CHAIRMAN. Was that wage fixed by agreement between the men and the company?

Mr. JOYCE. That wage was fixed by the War Labor Board. There was a wage scale fixed by the War Labor Board for the cities of Chicago, Cleveland, Detroit, and Buffalo.

In 1918 the company accepted that wage scale voluntarily and it went into effect. It then entered into an agreement with its men that as the wages in these four preferred cities should improve, the Philadelphia Rapid Transit Co. wages would improve in proportion, taking the average of the four cities.

Then, as Detroit, Cleveland, and Chicago were each in turn increased, there was a corresponding increase in the Philadelphia Rapid Transit Co.'s men's wages to keep that average.

The CHAIRMAN. You stated that it is the intention of the company to reduce all transfer points; did you not?

Mr. JOYCE. What is that, Mr. Chairman?

The CHAIRMAN. That it is the plan of the company to reduce all charges at transfer points?

Mr. JOYCE. It is the policy of the company to eliminate charges for transfers as soon as it can be done.

The CHAIRMAN. What effect will that have upon the present rate of fare that is being charged?

Mr. JOYCE. It will have the effect of reducing the average rate of fare, counting transfer passengers as passengers.

The CHAIRMAN. Will you be able to make that reduction in transfer points where charges are made and still maintain your present 5-cent fare?

Mr. JOYCE. Mr. Mitten is confident that he can do that, provided, of course, that the city remits the \$785,000 a year charged against the company for franchises, paving, and sinking fund.

The CHAIRMAN. So the only condition upon which you can eliminate these charges at transfer points is for the city to relieve the company of these assessments?

Mr. JOYCE. That is right.

The CHAIRMAN. Does the gross revenue received from the transfer charges exceed the amount which the company asks the city to assume?

Mr. JOYCE. Yes. The amount of income from the 3-cent exchange is \$1,600,000 per annum. The amount that the company asks the city to forego in the way of taxes and assessments is \$785,000 per annum.

The CHAIRMAN. Is that question under consideration by the council now?

Mr. JOYCE. It has not yet been formally presented to them, but will be early in October by President Mitten.

The CHAIRMAN. What is the longest single line you have in Philadelphia?

Mr. JOYCE. The longest round trip? That I am not able to answer.

The CHAIRMAN. Secretary of War Baker testified here that one of the reasons that Cleveland could operate for so long a time under a 3 or 3½-cent fare was because of its congested lines—to use a figure of speech, he says that the lines there are a good deal like a fan, with one single line and the branches radiating out from that, and that the average haul is short.

In what respect does Philadelphia differ from Cleveland, as far as operating conditions are concerned?

Mr. JOYCE. I would say that the average haul in Philadelphia is longer than in the average city; that is, the average length of route is longer.

The cars go from South Philadelphia to North Philadelphia straight through the business district without turning; and that is a long haul.

They go from the Delaware River across the Schuylkill and to the outward boundaries of the city without breaking in the business district.

The CHAIRMAN. Do you have lines that do not pay their way?

Mr. JOYCE. We have some lines now, in the outlying districts in Delaware County, that do not fully pay their way.

We have lines running to the north of the city, what we know as the Glenside line, which is a duplication of the service rendered on the York Road line, but which has developed a territory that, without that service, would be entirely without transportation service, and that therefore the company can not abandon. Those lines do not pay their way.

The CHAIRMAN. Do you think that operating conditions in your city are more or less difficult than in some of the other large cities in the country like New York, Washington, Baltimore, or Chicago, or Boston—we must not forget Boston.

Mr. JOYCE. I would say that they are not any more difficult than those cities, and less difficult than hilly cities like Pittsburgh and Cincinnati; but the cities that you have mentioned are of about the same topography as Philadelphia.

The CHAIRMAN. To what do you attribute the ability of that company to operate under the present high operating charges at 5 cents?

Mr. JOYCE. Principally to the enthusiastic cooperation of the men, to the good will of the public, and to the friendly relationship existing between the company and the public administrations, the city and the State.

The CHAIRMAN. Is your company giving reasonable service?

Mr. JOYCE. Yes; we have no complaints upon the service.

The CHAIRMAN. What is the condition of the equipment?

Mr. JOYCE. The equipment in Philadelphia, I would say, is first class, and perhaps will compare favorably with that in any city in the United States.

The CHAIRMAN. Have you kept up your repairs during the war?

Mr. JOYCE. Yes. We are now remodeling all of our cars to permit of more economical handling of the traffic, by the introduction of a side-door exit.

The CHAIRMAN. What is the condition of the track?

Mr. JOYCE. The condition of the track is good.

The CHAIRMAN. Have you kept that in good condition?

Mr. JOYCE. Yes. We have recently had it inspected by street-railway experts who pronounce it in good condition.

The CHAIRMAN. Have you paid out more or less money for maintenance of track and for your repairs during the past two years than you had in prior years?

Mr. JOYCE. That I am unable to say in comparative figures, but we have kept up maintenance.

The CHAIRMAN. Have any extensions been made during the past two or three years?

Mr. JOYCE. No major extensions. We have renewed rail, and done our fair proportion of that kind of upkeep, but no extensions to speak of. There has been some extension in the neighborhood of war industries; but on the whole it would not be appreciable.

The CHAIRMAN. In what department of your service do you find the greatest benefits growing out of this cooperative plan?

Mr. JOYCE. Particularly in the transportation department, but it runs through also the mechanical departments, the car repair shops, the way departments, upkeep of road. We are saved much money, we believe, by the enthusiastic work on the part of our shopmen, their splendid cooperation with the shop superintendents in effecting repairs, and doing pinch work in times of stress.

The CHAIRMAN. How can your plan improve the work of the motorman? The motorman has a certain run to make and he has to run on scheduled time. How could he give you any better service, under your plan, than he can upon any other plan?

Mr. JOYCE. He can, by the careful operation of his car, save power. He can, by spacing his stops, observing the people about to board his car, make stops in a convenient way for the public; and he can gain public favor in that way. He also aids the conductor in the handling of the traffic at loading points to some extent—of course, not to any great extent; but he can render some little help in that direction.

The CHAIRMAN. Will you answer the same question as to the conductor?

Mr. JOYCE. The conductor, by politeness to his public, the urging of them to space themselves within the car, by handling the traffic in and out of the car, by watchfulness in turning on and off lights—nothing is considered too small to deserve the attention of the management, and therefore the directing of the attention of the operating men to it.

The CHAIRMAN. In what respect does it affect the work of your trackmen?

Mr. JOYCE. It is difficult to answer that except insofar as an employee who is satisfied with his job and satisfied with his working conditions is a better workman than one who is not. The men on the way are out, scattered all along the right of way of the company, doing their work without much supervision beyond that of a foreman who is little above the average workmen, and the opportunities for laying down on the job are perhaps greater with them than with any other men in the service.

The CHAIRMAN. Are you satisfied you are getting good results from their work?

Mr. JOYCE. We are.

The CHAIRMAN. How does it apply in the shops?

Mr. JOYCE. In the shops good relations exist between the foremen and their men; the same general satisfied condition of the men; their willingness to meet extraordinary situations by extraordinary effort; team work in doing their work we consider of vast importance.

The CHAIRMAN. Do you classify labor in the shops?

Mr. JOYCE. Yes.

The CHAIRMAN. Do the employees themselves have anything to do with that classification?

Mr. JOYCE. Yes.

The CHAIRMAN. To what extent?

Mr. JOYCE. I am not able to answer you directly on that; but the classification of skilled mechanics in the shops was submitted to the men themselves, and the present classification is practically the result of their work.

The CHAIRMAN. And is the classification acceptable to the employees generally?

Mr. JOYCE. Yes.

The CHAIRMAN. Have many complaints about your service or other conditions been referred to the public-service commission in recent years?

Mr. JOYCE. No. We have been remarkably free from complaints on service.

The CHAIRMAN. Has the council or any local regulative body attempted to regulate your service during the past few years?

Mr. JOYCE. No; it is generally understood in Philadelphia that the rapid-transit company is rendering as good service as it can render. We have had no suggestion of change in the service.

The CHAIRMAN. When the management was taken over by Mr. Stotesbury and Mr. Mitten, was the property valued?

Mr. JOYCE. No.

The CHAIRMAN. It has never been valued?

Mr. JOYCE. No; it was taken over then on the basis of the fixed charges then in effect.

The CHAIRMAN. Then there is no way at the present time of saying that the capitalization is above or below the real value of the property?

Mr. JOYCE. No.

The CHAIRMAN. Is there any suspicion in Philadelphia that the property is watered?

Mr. JOYCE. Yes.

The CHAIRMAN. Have any concrete figures been presented to show that?

Mr. JOYCE. No; there have been efforts to show by the amounts of the rentals paid by the company that the amounts of the rentals are high in proportion to the capitalization of the underlying companies to which those rentals are being paid.

The CHAIRMAN. To how many companies are rentals being paid?

Mr. JOYCE. Twenty-two.

The CHAIRMAN. Do the employees make many demands for changes in service or hours or conditions?

Mr. JOYCE. The demands made by the employees in that direction are presented by them to their branch committees and to the department committees, and as indicative of the manner in which those demands are presented and met I brought with me the minutes of the branch committees of the transportation department and the rolling-stock department to give you some idea of about the kind of complaints that are presented here. I have only one copy of this and therefore am not able now to leave it with you.

The CHAIRMAN. But every complaint that is brought up is treated locally and minutes of the proceedings kept?

Mr. JOYCE. There are no minutes of the branch committees. They consist of four men, two men representing the employees and two men representing the management. A complaint is brought there by the men. It is either granted or denied. If it is denied, then it goes to the department committee, and it is there recorded. The department committee's proceedings are recorded, but the branch committee's proceedings are not recorded.

The CHAIRMAN. I understand that you have filed for the record testimony given by some of these department heads at the dinner recently held in Philadelphia?

Mr. JOYCE. Yes.

The CHAIRMAN. Do those minutes or do the statements made by those men fairly reflect the sentiment of the employees of the company?

Mr. JOYCE. Yes.

Commissioner SWEET. In speaking of the rentals that are being paid by the company, I got the impression that perhaps more is being paid in the way of rental than ought to be, or at least that the public have that idea. Is that correct?

Mr. JOYCE. Yes.

Commissioner SWEET. Do you think yourself that the rentals that are being paid are high?

Mr. JOYCE. Yes.

Commissioner SWEET. If the rented roads and parts of roads were all owned by the company at a fair valuation, increasing the capital of the main company to the amount that would be necessary to actually own them, do you think that the showing of the company would be better than it is now?

Mr. JOYCE. They would have to pay less, perhaps, in fixed charges, and therefore their net showing would be better.

Commissioner SWEET. How long do these rentals continue? Do they expire at different times?

Mr. JOYCE. There is practically no limit to them; they are 99 or 999 year leases.

Commissioner SWEET. Without any immediate prospect at least of getting rid of them?

Mr. JOYCE. That is true.

Commissioner SWEET. You spoke about the lines running from South Philadelphia to North Philadelphia and from the Delaware River west, but you did not give the mileage. Could you state that in each case?

Mr. JOYCE. I am not able to state it exactly and that is why I did not state it. I can estimate it, that from the farthest south in South Philadelphia that we run to the business district is approximately 4 miles, and that from the business district north to the point where most of the north and south lines goes is approximately 6 miles. That beyond that some lines go to Willow Grove, which is another 2 or 3 miles.

Commissioner SWEET. That is where this picnic place or resort is?

Mr. JOYCE. Yes; and there is considerable realty development along those lines in recent years.

Commissioner SWEET. Is there an extra charge to Willow Grove?

Mr. JOYCE. Yes; it is a 10-cent fare.

Commissioner SWEET. Now, is the fare 5 cents from the center of the city each way, or from one end to the other?

Mr. JOYCE. From one end to the other.

Commissioner SWEET. So that would be a total then north and south of—

Mr. JOYCE. Five cents.

Commissioner SWEET. Oh, I know; but the distance, the total distance from one end to the other, the longest ride for a nickel —

Mr. JOYCE. About 10 miles. I will have exact data on that. I am not able to testify positively that those distances are correct, but I will have exact data presented to you on that.

Commissioner SWEET. You spoke of welfare work among the men. What is the exact style of it?

Mr. JOYCE. The cooperative welfare association.

Commissioner SWEET. The cooperative welfare association?

Mr. JOYCE. It is a death and accident insurance.

Commissioner SWEET. Yes; I understand. In connection with that are there reading rooms or anything of that nature?

Mr. JOYCE. No; there are no places of amusement of that kind conducted by the company, but it does maintain at each depot very commodious and sanitary quarters for the men to assemble for their work and to wait for their time to go out; and they are supplied time-passing games and other conveniences for the men. Particularly is that true at the depots recently constructed and constructed since the Mitten management came into control.

Commissioner SWEET. That is well liked by the men; is it?

Mr. JOYCE. Yes; and I think it is highly appreciated by the men. The sanitary conditions around the car barns of the Philadelphia Rapid Transit Co. leave little to be desired in that direction.

Commissioner SWEET. This morning you spoke about placing confidence in the men; and I judged from what you said that it was thought it had had a good effect. For instance, among the conductors with regard to fares.

Mr. JOYCE. Yes; we think so. We think it is a very important psychological consideration to show the men that you trust them and that you do not suspect that, because a nickel touches the hands of a conductor it thereby is in danger of being lost to the company.

Commissioner SWEET. Do you use no devices of any kind—

Mr. JOYCE. No devices of any kind. We believe we have less pilfering on our lines than anywhere else in the United States, and we have reason to believe that. Our men have observed other lines and are constantly observing our own; and that is the conclusion our operating officials have come to, that the men respond to that kind of trust.

Commissioner SWEET. Of course, you have no accurate means of knowing whether money is stolen or not, or how much?

Mr. JOYCE. Not reduced to the dollar-and-cents accuracy; no.

Mr. SWEET. Have you ever tried the one-man car?

Mr. JOYCE. I may say no; generally. We are now experimenting with it, trying it on these outlying lines to which I referred a moment ago as being nonpayers. We have some, what we call country lines in Delaware County, serving a sparsely settled territory, and we are trying the one-man cars there.

Commissioner SWEET. What make of car?

Mr. JOYCE. The Birney car.

Commissioner SWEET. They are using them at Trenton, are they not?

Mr. JOYCE. I think so; yes, sir.

Commissioner SWEET. You have not yet tried them enough to know whether it is going to be an economy or not?

Mr. JOYCE. No; we have one little line on which we installed two Birney cars for one of the old type, and the revenue, the gross, has increased about 25 per cent. Of course, the frequency of service may account for the increase in the gross there. But I may say we have not had any such experience that would be of any value here.

Commissioner SWEET. Have you had any jitney opposition?

Mr. JOYCE. Practically none.

Commissioner SWEET. Is Philadelphia much of an automobile city as compared with other cities?

Mr. JOYCE. Yes.

Commissioner SWEET. Can you see that the use of automobiles has interfered with your business?

Mr. JOYCE. Well, we know in a general way that it has, but we have not any statistics that will point it out exactly.

Commissioner SWEET. Your figures show that the business of the company has been increasing right along?

Mr. JOYCE. Yes. It has had a normal increase.

Commissioner SWEET. It has increased more rapidly than the population has increased, has it not?

Mr. JOYCE. Yes. The riding habit has increased; the number of rides per capita of population has increased.

Commissioner SWEET. That would not look as if the automobile had cut into your business very much, would it? Or do you figure that it reduces your business, and then your better service, etc., and popularity have increased it more than enough to offset the loss by automobile riding; is that it?

Mr. JOYCE. That is right. Frequency of service on our lines, I think, tends to a large increase in short riding.

Commissioner SWEET. Apparently you have gone to the use of larger cars in the center of the city?

Mr. JOYCE. Yes.

Commissioner SWEET. And you have found them to be economical?

Mr. JOYCE. Yes; enabling us to carry more people in proportion to the number of men employed to carry the people.

Commissioner SWEET. But at some increased expense in the way of power, I suppose?

Mr. JOYCE. Yes; and it requires the most careful study of the traffic to make sure that you are not operating too many cars and that you are operating enough cars at the times that it is necessary to operate many—the peak hours.

Commissioner SWEET. You spoke of the local conditions in Pittsburgh, on account of the hills, being quite different from Philadelphia?

Mr. JOYCE. Yes.

Commissioner SWEET. Are you sufficiently familiar with conditions at Pittsburgh to give any opinion as to whether a street-railroad system could be operated there at a reasonable profit or make reasonable returns on the investment at a 5-cent fare?

Mr. JOYCE. I do not think it can be done under present conditions.

Commissioner SWEET. You think that, if all of the good things that you have told us about in the Philadelphia system could be put into operation in Pittsburgh, the local conditions with regard to hills, etc., would prevent success on a 5-cent rate of fare?

Mr. JOYCE. That is right. Pittsburgh has so many difficulties as compared to Philadelphia in the matter of grades and the difficulties of topography, the location of the rivers, the location of the population, the long, unremunerative hauls, that there is practically no comparison between the two cities. And while we are sailing along very close to the wind in Philadelphia on 5 cents, Pittsburgh would simply not be able to run at all on 5 cents. We have, as compared with Pittsburgh, many advantages, and we are just able to make ends meet. Pittsburgh would not under those conditions be able to run at all.

Commissioner SWEET. You account for a great deal of your success on the popularity and the general cooperation and good feeling of the public, if I understand you correctly?

Mr. JOYCE. Yes.

Commissioner SWEET. As well as your own employees?

Mr. JOYCE. Yes.

Commissioner SWEET. You are losing nothing by way of strikes and labor disturbances. Your system is such as to bring about an amicable, peaceful adjustment of any difference of that kind?

Mr. JOYCE. Yes.

Commissioner SWEET. And the general public has been advised of your financial situation and everything that is going on, and whatever prejudice there may have been in the years past has been broken down in Philadelphia, as I understand you, practically?

Mr. JOYCE. Yes.

Commissioner SWEET. So that the riding habit, as you phrase it, has been materially increased by reason of that popularity. Is that your view?

Mr. JOYCE. Yes; I believe that a considerable proportion of the success of the company may be attributed to that; and as evidence of the good feeling existing, the editorial in the North American, which I introduced this morning, is very much in point there. The papers were at one time very hostile to the street-car company. Mr. Mitten has convinced them that he deserves their good opinion, and he has it; and that editorial is not the only one that has appeared in the Philadelphia daily papers. Nearly every paper in the city has commented editorially upon the management and commended it.

Commissioner SWEET. You would not claim that all cities that are as level as Philadelphia could take the Philadelphia plan and reach a satisfactory result on a 5-cent fare, would you?

Mr. JOYCE. No.

Commissioner SWEET. There are other elements which come in, as the outlying-district runs, long or short, etc., that have to be made—and the general character of the city?

Mr. JOYCE. Yes.

Commissioner SWEET. They all play a part?

Mr. JOYCE. Yes.

Commissioner SWEET. For instance, compare Chicago with Philadelphia. Do you think the Philadelphia system, if incorporated in Chicago, would work as satisfactorily as it does in Philadelphia?

Mr. JOYCE. It is almost impossible to conceive of putting the Philadelphia system in operation over night. It is the growth of several years.

Commissioner SWEET. Of course, that could not be done; but it is a mere——

Mr. JOYCE. If the same growth had obtained in Chicago that has in Philadelphia, I do not know what the answer might be.

Commissioner SWEET. Is it your opinion that there are many cities of the United States, like Boston, Pittsburgh, and others, in which the solution of this question is to be found in an increase of the rates of fare?

Mr. JOYCE. Increase in revenues; certainly. As to whether that increase in revenue is to be obtained by further increases in fares, I can not answer.

Commissioner SWEET. That, of course, requires a certain amount of public education, does it not?

Mr. JOYCE. Yes.

Commissioner SWEET. I think that is all.

Commissioner MAHON. What hours do your men in miscellaneous and shop departments work?

Mr. JOYCE. I believe the nine-hour day is the basic day. As to that, I am not certain.

Commissioner MAHON. You have not put in any wages in this statement for those departments; all you have referred to is trainmen, is it not?

Mr. JOYCE. That is right.

Commissioner MAHON. And you presented there the minutes of the committees. Does your company keep those minutes?

Mr. JOYCE. The secretary of the committee keeps the minutes.

Commissioner MAHON. You have access to them?

Mr. JOYCE. Yes.

Commissioner MAHON. That is all I want to ask.

The CHAIRMAN. Are those minutes accessible to all parties?

Mr. JOYCE. Yes.

Commissioner WEHLE. Is it your opinion, Mr. Joyce, that the general efforts which have been made in Philadelphia to effect economies in operation have been attempted in cities other than Philadelphia?

Mr. JOYCE. I am not able to answer you. I would say that certainly all managements looking forward would make efforts at economy, and I dare say you would find these efforts at economies perhaps not exactly duplicated, but other efforts made that would look in the same direction.

Commissioner WEHLE. But it is a fact, I suppose, that in Philadelphia the various campaigns which you described this morning have been pursued to almost a unique degree in the electric street railway world. Is that true?

Mr. JOYCE. I think you may say that Philadelphia has had a unique development in that regard.

Commissioner WEHLE. The Mitten system of going after one feature and then another feature, and then still another feature, following over a course of several years of the street-railway business in order to make it more effectual, has not as yet been followed by any other property than the Philadelphia property, has it?

Mr. JOYCE. None that I know of.

Commissioner WEHLE. Of course, such a system as that, if you can call it a system, has been the work to a very unique degree of

managerial skill and their capacity for handling men and impressing the personality of the manager on the whole community?

Mr. JOYCE. Yes; to a marked degree that is true.

Commissioner WEHLE. Do you think there are cities in the United States other than Philadelphia which, in their general conditions with reference to the street-railway properties, are sufficiently similar to Philadelphia to hold out a promise of greatly increased revenues through the putting into operation of the various remedies which have been put into operation by Mr. Mitten?

Mr. JOYCE. I don't know. I do not know what effect any one of these efforts of Mr. Mitten would have in any other city. We only know that, as a whole, they have been successful in Philadelphia. Whether any one of them or all of them would be successful in any other city nobody can tell.

Commissioner WEHLE. Has the American Electric Railway Association ever interested itself in the Philadelphia plan?

Mr. JOYCE. I do not know that the association has, as an association; but there have been published from time to time experiences of the Philadelphia Co. All of the outstanding features of Philadelphia's management have been described at times in the publications of the society, the Railway Journal and the Journal of the American Electric Railway Association.

Commissioner WEHLE. Has the American Electric Railway Association ever undertaken officially to press upon its individual membership the importance of effecting these economies in operation which have been so vividly described with reference to Philadelphia?

Mr. JOYCE. I do not know that they have specifically picked out Philadelphia and offered it as a model. I believe that the whole tone of the American Electric Railway Association is in the direction of better service and better things for the association. That is the only excuse they have for living that I can see.

Commissioner WEHLE. Do you think, as proving that their efforts are in the right direction—and I think we will all agree that they are—do you think that they could do more than they have done in instructing the leading street railway companies of this country in more effectual and economic operation?

Mr. JOYCE. I do not know. That is a difficult question to answer, and I would not undertake to answer it.

Commissioner WEHLE. We were speaking a little while ago about the increased real estate values which were created in suburbs by the building of extensions or by improving the existing facilities and you were speaking of the Market Street subway in Philadelphia and the improvements which were reflected from that operation in the real-estate values of West Philadelphia?

Mr. JOYCE. Yes.

Commissioner WEHLE. How much greater were the real-estate values that were created by the improvement than the cost of the improvement itself?

Mr. JOYCE. I have only very vague information upon the increase in real-estate values. I have only the public reports of the estimate of the Real Estate Board of Philadelphia to the effect that real-estate values have improved over \$130,000,000 in West Philadelphia

alone, and the cost of construction of the subway and elevated in Philadelphia will run along about \$30,000,000.

Commissioner WEHLE. Could you send to the reporter, to be incorporated into the record here, a copy of that report?

Mr. JOYCE. Of the report of the real-estate board?

Commissioner WEHLE. Yes.

Mr. JOYCE. I am not sure that it took the form of a definite report. I do not know. If it has, and I am able to procure it from the real-estate board, I shall certainly be happy to send it to you.

The CHAIRMAN. I presume you just want that part of the report that relates to that particular question?

Commissioner WEHLE. Yes.

Is it your belief, Mr. Joyce, that the capitalized value on which the public is obligated to pay interest could be held down if the extensions of street-railway systems were paid hereafter by means of assessments on the property that is improved in value by the extension, with the obligation of the street-railway company to make up to the city whatever deficit there might be remaining, due to the fact that the increased real-estate values do not equal the cost of the improvement?

Mr. JOYCE. Do you mean that when you lay a street-car track in the street and put wires over it and equip it for street-railway operation all of that cost would be assessed against the abutting property in the same way that paving is now assessed in some States?

Commissioner WEHLE. That is the principle that I had in mind, although I should not limit it quite as you have in your interpretation of my question. I should not, for instance, tax only the abutting property.

Mr. JOYCE. You would tax all the property in that vicinity?

Commissioner WEHLE. It might be that the property would have to be taxed considerably beyond the abutting property, if the report of the assessors justified such taxation, by reason of accretion in value. Then if the city should finance the building of the extension, after the city itself has approved of the building of the extension and were then to recoup itself from the property owners in the vicinity of the improvement, by special assessments or, to the extent that it could not recoup itself, have recourse upon the railway company for the balance of the cost which was not capable of being recovered from the property owners—then you would have, in general outline, the plan which I meant for you to consider.

Mr. JOYCE. And your question is as to whether that would tend to further extend or to restrict the further extension of street railways?

Commissioner WEHLE. No. My question was this: Whether that would not tend to reduce, as time goes on, the capital on which the riding public is asked to pay dividends to the investors in the property?

Mr. JOYCE. My answer is yes.

Commissioner WEHLE. Do you know of any instance where that kind of plan has been put into operation?

Mr. JOYCE. No.

Commissioner WEHLE. What would you think of such a plan?

Mr. JOYCE. There are difficulties in it—difficulties in assessing the benefits, as you seem to recognize when you say that perhaps the city

would not be able to get out of the benefit assessments the full cost—that perhaps would be almost insurmountable; but there is an economic soundness in the theory, I think.

Commissioner WEHLE. You have never seen it proposed?

Mr. JOYCE. No.

Commissioner WEHLE. I was wondering whether perhaps it had been proposed in connection with this comparison of figures which had been made by the real-estate people in Philadelphia.

Mr. JOYCE. No. The real-estate people are interested in improving the condition of real estate. They do not care, particularly, whether the street-car line pays or not. They are in business to sell lots and houses.

Commissioner WEHLE. Do you think that, if fares were lowered in some cases a greater revenue would result than if they were raised—using 5 cents as the standard?

Mr. JOYCE. I have really no opinion upon that subject. In some instances perhaps your answer would be yes, and in some others no.

Commissioner WEHLE. I was wondering, in connection with your Philadelphia situation as you described it, whether a lowering of the fare during the hours of thin traffic, a lowering of the fare below 5 cents, say during the hours from 10 to 12 in the morning, and perhaps from 2 to 4 in the afternoon, and again from 9 to 10 at night, might produce a greater uniformity of travel and perhaps increase revenues?

Mr. JOYCE. I have heard that discussed.

Commissioner WEHLE. You have?

Mr. JOYCE. I have heard that discussed, but I have not heard anybody who had any fixed opinion upon the subject.

Commissioner WEHLE. It would tend to reduce your peak load, would it not?

Mr. JOYCE. Perhaps it would keep people from going shopping at the peak hours if they could find a cent or two advantage in the fare would make it worth their while to go shopping in the off-peak hours. There might be some of that, but it is very doubtful.

Commissioner MAHON. It would be mighty limited, would it not? Would not that be your opinion?

Mr. JOYCE. Yes, I would say so; because the amount involved is not very great, and in America they do not seem to care much for those odd cents.

Commissioner MAHON. And the persons that could be induced in that way would be very limited?

Mr. JOYCE. That is true, I think.

Commissioner MAHON. That is the result of all the investigations that I have ever studied about it and of my own observation.

Commissioner WEHLE. To what extent, if at all, has the freight business or express business been developed by the traction system in Philadelphia?

Mr. JOYCE. I have refrained from discussing that, because it is not a sufficiently large factor in our gross; but I may say that we have had a constantly improving freight service, and we are now very closely studying the possibilities of it.

Commissioner WEHLE. Does it not seem to you that there is in the package service—intracity package service—a considerable potential source of revenue, if it is properly developed?

Mr. JOYCE. We think so; and we think so well of it that we are now giving that subject very considerable study with a special corps of freight experts and traffic experts to develop the possibilities of that kind of service.

Commissioner WEHLE. If you were to use your subways, particularly for that purpose, during the hours of from midnight to 5 o'clock in the morning, would you not get a considerable realization on your interests—that is, running during the night?

Mr. JOYCE. There are physical difficulties in the way there, Mr. Commissioner. The idea is a good one, but there are physical difficulties in the way of handling freight. The handling of the freight is frequently higher than the cost of the transportation, and where you have a short haul the handling of the freight at the terminals is the most important part of the cost of the handling and transportation to the company. So that you can conceive of the difficulty of carrying freight up onto the structure that we use for a terminal, and then the taking of it out of the subway and delivering it on the surface. There are many difficulties in that direction that preclude the possibility of that use of the subway now. However, the subject of freight carrying by street railways is, as I say, now being carefully studied by our people.

Commissioner WEHLE. Have there been any reports made on that subject in other cities?

Mr. JOYCE. I do not know.

Commissioner WEHLE. Is your report, or are any preliminary reports which have been made for the Philadelphia system, available at this time?

Mr. JOYCE. No.

Commissioner WEHLE. Are you able to state for the record any general conclusions which seem to be suggested by the investigation which has taken place up to this time in Philadelphia?

Mr. JOYCE. No. We have a general freight agent and a freight department, and we are making some money out of freight, but I am not able to give you anything that would be of value to you.

Commissioner WEHLE. Are there any other sources of saving or of effectualization for the Philadelphia system which are in the minds of the management and which it is the intention of the management to develop?

Mr. JOYCE. They are almost without end, Mr. Commissioner. We have a corps of men who do nothing else but study the probabilities of economies and coordination to the end of serving the public better, at a lower cost, rearrangement of schedules, rearrangement even of the offices, rearrangement of the departments, the location of the offices at convenient points, and the arrangement of the machinery in our shops, the arrangement of the repair bays in our barns; and all of those things and many others that I can not enumerate are the subject of constant study, and the day hardly passes that something new is not done in the way of improvement.

We have just recently, by a rearrangement of the offices on the subway elevated, effected a saving of time of 20 people, and were able to drop that many people from the pay roll without any appreciable change in the service to the public and with, in many cases, an improvement in that service.

Conditions change from day to day, and a schedule of duty assignments that will obtain to-day may not fit the conditions at all six months from to-day. The time of reporting on duty and off duty for certain people to relieve stress at certain times, such as we have in the system of collection of fares on the subway elevated, changes from year to year.

Commissioner WEHLE. But those are really improvements in efficiency, generally speaking, are they not, that you now refer to?

Mr. JOYCE. Yes.

Commissioner WEHLE. Efficiency in office management or something of that sort?

Mr. JOYCE. Efficiency in management in the broad sense.

Commissioner WEHLE. In a broad way? In a general way?

Mr. JOYCE. Yes.

Commissioner WEHLE. Applicable everywhere in the system?

Mr. JOYCE. Yes.

Commissioner WEHLE. I was wondering whether you had any definite category of expenditure or of activity in mind where the management was expecting to effect economies on a large scale?

Mr. JOYCE. No.

Commissioner WEHLE. To turn back to our discussion a moment ago about freight: On page 2, in that part of the Three-Cent Exchange pamphlet which you have handed to us, there is an annual report of the Philadelphia Rapid Transit Co. showing an income account for the years ended December 31, 1918 and 1917, and there appears there for 1918, in addition to the item "gross passenger earnings, \$30,000,000 plus," the item "receipts from other sources, \$1,000,000 plus."

Mr. JOYCE. Yes.

Commissioner WEHLE. What does that "receipts from other sources" refer to?

Mr. JOYCE. It refers, among other things, to freight receipts.

Commissioner MEEKER. Advertising?

Mr. JOYCE. Advertising on the cars and on the platforms; concessions on the platforms; the Willow Grove receipts would be in that. Perhaps that would cover the list. There may be others.

Commissioner WEHLE. But the freight item does not play a very important part in that \$1,000,000 plus?

Mr. JOYCE. It does not. The freight item does not play a very important part in our gross.

Commissioner WEHLE. That is all.

Commissioner GADSDEN. Mr. Joyce, you have attended quite a number of our sessions, have you not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. You have heard the testimony as to the condition of railway properties generally throughout the country?

Mr. JOYCE. Yes, sir; and I have read that which I have not heard.

Commissioner GADSDEN. You are very familiar with it?

Mr. JOYCE. Yes.

Commissioner GADSDEN. And you are familiar with it outside of that?

Mr. JOYCE. Yes.

Commissioner GADSDEN. I do not take it that it is the intention of Mr. Mitten or yourself to leave the impression on this commission

that if all of those properties had been managed by Mr. Mitten the trouble would have disappeared? You have no idea of leaving any such impression as that, have you?

Mr. JOYCE. No.

Commissioner GADSDEN. The fact that you have been able to obtain certain results in Philadelphia does not lead you to say that the same results would be obtainable in other places necessarily, does it?

Mr. JOYCE. No.

Commissioner GADSDEN. Nor that the increase of fares which other properties throughout the United States have found necessary were not necessary?

Mr. JOYCE. No.

Commissioner GADSDEN. It is not inconceivable that a whole industry should go by the board for failure of proper management? That would be the indictment, would it not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. That is a great industry, ranking second or third of the industries in the United States, had been mismanaged, would it not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. Which is inconceivable?

Mr. JOYCE. That is right.

Commissioner GADSDEN. Therefore, is it not also true that the problems in many respects are local largely?

Mr. JOYCE. Yes.

Commissioner GADSDEN. And that it is not fair to take one property and compare it with another and say that if you can obtain certain results in Washington, we will say, you ought to get the same results in Richmond?

Mr. JOYCE. That is right.

Commissioner GADSDEN. You would not say that—or anybody else who knows the business—would you?

Mr. JOYCE. No.

Commissioner GADSDEN. The Mitten management are members of the American Electric Railway Association, are they not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. And take an active part in its deliberations and operations, do they not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. So that anything which the Mitten management have been able to accomplish for the betterment of the industry has been available for the industry, through the association, has it not?

Mr. JOYCE. Yes.

Commissioner GADSDEN. And there is no conflict in policy of aims between anything that Mr. Mitten may have attempted to do for the industry and what the best thought of the industry outside of it may have attempted? Isn't that true?

Mr. JOYCE. That is true, as far as I know.

Commissioner GADSDEN. For instance, I notice here one of the elements which, to my mind, helps to differentiate Philadelphia from most cities that I know of is this very fact of the 3-cent exchange. Isn't that a very unusual provision nowadays in American cities?

Mr. JOYCE. Unusual in that there is a charge for the transfer?

Commissioner GADSDEN. 3 cents.

Mr. JOYCE. Unusual that there is a charge at all, or that the charge is 3 cents?

Commissioner GADSDEN. Before the war that there was a charge at all.

Mr. JOYCE. Well, I know that we used to pay a cent for a transfer in Cleveland at times.

Commissioner GADSDEN. But as a general rule there are universal transfers, are there not—free transfers?

Mr. JOYCE. In Pittsburgh there were no transfers except at a few places, and in some other cities with which I was familiar the transfer privileges were restricted.

Commissioner GADSDEN. I mentioned that because I noticed that you, for instance, on that item alone—your estimate is that you get \$1,600,000 for 1919, which is over 5 per cent of your entire gross. If you had not had that 3 cents, you probably would not have had a surplus at all in 1918, because your surplus was less than a million and a half dollars. Isn't that true?

Mr. JOYCE. Yes.

Commissioner GADSDEN. Therefore if there had not been in Philadelphia the 3-cent-exchange charge, the situation in Philadelphia in 1918 would not have earned a surplus. I am only mentioning that as one item.

Mr. JOYCE. That is a possibility.

Commissioner GADSDEN. As we go along I am only mentioning that.

Mr. JOYCE. Yes; that is a possibility.

Commissioner GADSDEN. Therefore those are different phases of situations that present themselves; so that you can not generalize in that way, can you—it is not safe to do it?

Mr. JOYCE. No; I think that is quite right.

Commissioner GADSDEN. I am only bringing that out.

Mr. JOYCE. I think you are quite right there.

Commissioner GADSDEN. I knew Mr. Mitten's attitude and I wanted to put it properly before this commission.

Mr. JOYCE. That is his attitude, I think, exactly.

Commissioner MEEKER. You spoke a moment ago of the fact that your company was sailing close to the wind. I suppose the company is considering the possibility of increased revenues or decreased expenditures. Is it a fact that the company is about to ask for an increase of the 5-cent fare?

Mr. JOYCE. No.

Commissioner MEEKER. You are not contemplating that?

Mr. JOYCE. No; we are not contemplating that.

Commissioner MEEKER. Has the company made any study of zone fares with a possibility of adopting them in Philadelphia?

Mr. JOYCE. I do not know that they have made it with any idea of possible introduction of it; but the zone fare has for a long time been the subject of much study and discussion in the street-railway industry, and I believe that, in common with all other subjects, the company has given that some thought. I do not know, officially, that they have; but I would say that no doubt that subject, being one much mooted in the industry, the management has thought of it.

But as to using it as a possible means of improving the income of the company, no movement in that direction, so far as I know, has been made.

Commissioner MEEKER. The company, then, is centering its attention rather upon economies in operation than upon means of increasing revenues?

Mr. JOYCE. Economies in operation, movements in the way of putting service at the disposal of the public at times when the public wants it, and therefore improving the riding habit and improving the revenue in that direction, and increasing the riding habit.

For example, the company has now embarked upon a campaign of advertising, urging the public to ride in the cars. The cars now carry on the dashboard, on the front of the car outside where the passerby can see it, a large sign about 1½ feet high, with letters about 8 inches high, carrying the legend: "Ride with us." And on the inside of the car they carry dashboard advertisements such as is referred to in Mr. Mitten's letter, carrying the legend: "Low fares make walkers ride. High fares make riders walk. More fares make low fares."

And there are other ways of advertising that the company uses to urge the people to ride in the cars.

Commissioner MEEKER. Do you have any means of checking up the effectiveness of these advertisements?

Mr. JOYCE. No.

Commissioner MEEKER. You display them because you think they bring results?

Mr. JOYCE. Yes; we do that in the same hope that merchants advertise their wares. It is a difficult matter for them to trace improvement in their business to advertising, or to any particular advertising. Efforts are made in that direction, but the results are not always tied up to the particular advertising, or to advertising at all.

Commissioner MEEKER. Mention has been made several times of Mr. Mitten's management. A part of the success of the Philadelphia Rapid Transit Co. is due to the good relations existing between the public and the management and between the management and the employees; isn't that true?

Mr. JOYCE. Yes; that is true.

Commissioner MEEKER. And that does not always exist in other municipalities?

Mr. JOYCE. That is right.

Commissioner MEEKER. If other municipalities could adopt either this plan or some other plan that would bring those results they would probably be in a better situation to-day than they are?

Mr. JOYCE. I believe those things always tend to improvement.

Commissioner MEEKER. In so far, then, as Mr. Mitten has succeeded in gaining the confidence of the public in the rapid-transit company and gaining the confidence of the employees, the success of the Philadelphia Rapid Transit Co. is due to his management?

Mr. JOYCE. I think that is true.

Commissioner MEEKER. And that successful management might be instituted in any municipality in the country with beneficial results?

Mr. JOYCE. Yes; I can only point to the comparison between operations in Philadelphia under Mr. Mitten's management and operations in Philadelphia under the prior management.

Commissioner MEEKER. Are there differences in the traffic conditions that have come about since Mr. Mitten's management that might, in part, explain that difference in result?

Mr. JOYCE. I do not know what they would be. In the more recent past there has been an increase in activity in Philadelphia, due to the war; but the tide had turned long before that in Mr. Mitten's favor, or in favor of the company, due to his management. The tide had turned and he was in a position only of being able to take advantage of the further improvement, and then to be able with that to offset too high costs that followed.

Commissioner MEEKER. You spoke of the street-car advertising being rigidly supervised or supervised carefully by the company. Just what did you mean by that?

Mr. JOYCE. To study the possibilities of expanding that revenue, of improving the revenue from our advertising, laying open to advertising additional space in the cars.

Commissioner Meeker. I think you said that you expected during this current year to receive something like \$700,000—

Mr. JOYCE. \$300,000.

Commissioner MEEKER. \$300,000?

Mr. JOYCE. \$300,000 net we expect from that alone.

Commissioner MEEKER. Have you any idea what is the income of the company to whom you lease advertising space?

Mr. JOYCE. They have an income based upon a division of the gross. I am not able to give you now that division. I have not it in mind. It is based upon a division of a per cent of the gross.

Commissioner MEEKER. The only thing I wanted to bring out was just what you meant by "supervising" of advertising.

Mr. JOYCE. You might let out your advertising to an agent and then sit back and depend upon him to develop it to its possibilities, or you might let it out and then supervise your agent and supplement his efforts by bringing to his notice things that, perhaps, he had overlooked, as we have done in Philadelphia.

Commissioner MEEKER. You think that the income received by the street-railway corporation is a fair income for the space utilized for advertising purposes?

Mr. JOYCE. Yes.

Commissioner MEEKER. You spoke of your labor turnover figures, and they are astonishingly favorable. I think you referred to one year in which your labor turnover was .3 of 1 per cent.

Mr. JOYCE. Yes; that year, Mr. Commissioner, I pointed to the fact that that was the year either in which, or immediately following, the year in which we made important changes in the rerouting of cars, resulting in a release of men, and that instead of releasing those men, we allowed the ordinary turnover to take up that slack; and, of course, that would reduce the turnover for that year.

Commissioner MEEKER. But in other years where that condition did not obtain, I think your turnover was as low as 3 per cent, was it not, or thereabouts?

Mr. JOYCE. Yes.

Commissioner MEEKER. And for this present year, 1919, it is now 18 per cent?

Mr. JOYCE. Yes.

Commissioner MEEKER. Computed on the annual basis?

Mr. JOYCE. Yes.

Commissioner MEEKER. Do you ascribe that favorable record in labor turnover to the labor policies of the company?

Mr. JOYCE. Yes. Mr. Mitten ascribes the improvement in the labor turnover to the fact that the men are better satisfied.

Commissioner MEEKER. You spoke of your men as having increased in efficiency; that is, in their ability—I can not quote your words—but in substance it meant in their ability to handle traffic units?

Mr. JOYCE. Yes.

Commissioner MEEKER. Will you elaborate that? How can a street-railway conductor or motorman handle traffic more efficiently because he has been long in the service of a particular company?

Mr. JOYCE. The improvement in the number of traffic units handled by the trainmen may be attributed to not any particular cause. The business has increased, and the company by skilful management of its cars has succeeded in taking care of the increase with the same number of men, resulting in an increased proportion per man. Now, how much of that is due to the efforts of the individual man I don't know. I could not answer that question specifically for Mr. Chairman Elmquist; but certainly we attribute a goodly proportion of it to the fact that our men are putting forth efforts in handling the business.

Commissioner MEEKER. Can you submit to me now your figures of labor turnover?

Mr. JOYCE. Yes; and I think that I have an extra copy that I may let you have now. If I have not, I shall mail one to you as soon as I get back to Philadelphia.

Commissioner MEEKER. That is all.

Commissioner MAHON. In your turnover you do not call attention though to the reduction of the number of men over 1,000 in the service of the company. Those men went on to the extra list and were there to supply the shortage of labor, were they not?

Mr. JOYCE. Yes. I did, I believe, make some reference to that, Mr. Commissioner.

Commissioner MAHON. I did not notice any reference to that, and in Mr. Meeker's questions there it did not come out. That must not be lost sight of—that that would be part of the turnover.

Commissioner MEEKER. I so understood Mr. Joyce to answer the question. I understood it in exactly that way. The reduction in the labor force was not counted as a part of the turnover.

Commissioner MAHON. But it would be a part.

Commissioner MEEKER. It is according to what we mean by "labor turnover." I wish the term had never been invented.

Commissioner MAHON. So do I. But if there are 1,000 men put back in the extra list by the decreasing of service, they fill the place of new men that would have come in and would take the place of your turnover if you were figuring it on the basis these men figure the turnover.

Commissioner MEEKER. Mr. Chairman, may I be permitted to make this suggestion: It seems to me it would be very much more intelligible if we used the term "labor flow" and interpreted or defined that expression to take care of both hirings and separations, so that then whether the company was increasing its labor force or decreasing its labor force we would have an accurate measure of just what was going on in that corporation or company.

The CHAIRMAN. Point 4 in the statement submitted by Mr. Mitten this morning deals with the experience of other cities in the cost-of-service plan. Have you made a study of the service-at-cost plan?

Mr. JOYCE. Only in so far as it has been developed here before this commission.

The CHAIRMAN. I observe Mr. Mitten says that the street-car situation is one of peculiar difficulties and is essentially a local question. Do you believe that applies to the cost-of-service plan, or is it one which can be applied generally throughout the country?

Mr. JOYCE. I think yes. I do not believe that the mere fact that you are operating under a cost-of-service plan would change the situation much. The so-called good will that the lines get from the people when they get a realization that it is their own property in that sense does not, I think, change the situation much. If you get their good will in any other way, it is their good will that counts in that direction.

The CHAIRMAN. Have you anything to add to Mr. Mitten's statement on that particular point?

Mr. JOYCE. No; I have not.

Mr. WARREN. May I ask Mr. Joyce two or three questions?

The CHAIRMAN. Yes.

Mr. WARREN. It is such an interesting statement of the situation in Philadelphia that I would like to clear up two or three matters which I am not sure about.

In a way, you have a sort of service at cost in Philadelphia; that is, you have certain of the supposed advantages of it—the mayor and two citizens or two representatives of the city government are on your directorate under your agreement?

Mr. JOYCE. Yes.

Mr. WARREN. So to that extent there is an active public participation, or possible active public participation, in the conduct of the corporation?

Mr. JOYCE. That is right.

Mr. WARREN. And that undoubtedly conduces to a more favorable attitude on the part of the public?

Mr. JOYCE. Perhaps.

Mr. WARREN. It is intended to, I suppose, at any rate?

Mr. JOYCE. Yes; I think so.

Commissioner WEHLE. You will not say, Mr. Warren, that that was an essential element in the service-at-cost plan?

Mr. WARREN. I think so. I think Mr. Secretary Baker brought that out very clearly—I do not know whether it was he who made this particular statement, but it was either he or Mr. Sanders—that many of the people in Cleveland felt it was their road and it was because of the participation of the city through the public street-railway administrators; and it struck me as I looked over this contract hastily that that was perhaps not an essential feature, but a very

desirable feature sought to be obtained. In the Massachusetts statute, for instance, which has not been availed of by any company as yet, there is a provision for two directors—I think to be named by the city or town or the governor or something of that kind on the board of directors.

Then about fares; as I understand it, you have all your revenue passengers, the initial revenue passengers, pay a 5-cent fare.

Mr. JOYCE. Yes.

Mr. WARREN. Do they transfer free from surface lines to elevated and subway lines and vice versa?

Mr. JOYCE. At points; yes, sir.

Mr. WARREN. Not at all points?

Mr. JOYCE. Not at all points; no, sir.

Mr. WARREN. Are some of these 3-cent-exchange points, points of transfer between the rapid-transit and surface lines?

Mr. JOYCE. Yes, sir.

Mr. WARREN. What proportion of the transfer points should you say were free or rather, what proportion of the riders transferring from surface to rapid-transit lines do so without charge?

Mr. JOYCE. I would not be able to give you figures on that, but I can only give you something out of my own experience. I live along the elevated line at one of the important cross-town arteries in West Philadelphia, and all passengers getting off at that point get a transfer to the surface lines on that street. The same is true at four other very important cross-town arteries, and the number of 3-cent-exchange tickets that are used in transferring to the subway is comparatively small. I would say that the great number of people who transfer to and from the elevated subway do so free, but I can give you exact statistics on that if you desire it for this record.

Mr. WARREN. I think it might be interesting to have it for the record. In Boston, you know, there is an absolutely free transfer, and in New York, on the other hand, I think there is no transfer whatever from surface lines to rapid-transit lines; and apparently Philadelphia falls in somewhere between those two extremes, and I wondered just where it fell.

Approximately your 3-cent transfer passengers added to your free-transfer passengers would represent a little less than an average charge of 1 cent for a transfer on all transferred passengers, I should judge from what you say.

Mr. JOYCE. I have not made that calculation, but I would not be surprised if that were true.

Mr. WARREN. So that, to that extent, it would be something like the Cleveland charge of 1 cent for transfers.

Mr. JOYCE. If that were true, perhaps.

Mr. WARREN. If that were true?

Mr. JOYCE. Yes. I do not know.

Mr. WARREN. In looking over the report for the year 1918, I notice the total investment is not given of the leased lines and the rapid-transit lines and the explanation is given for why it is not there—because the city comptroller thought better to omit it.

Mr. JOYCE. Yes.

Mr. WARREN. I wondered whether you had in mind roughly how much the total book investment is of both the leased lines and the rapid transit.

Mr. JOYCE. I have not.

Mr. WARREN. There is given here the funded debt of the leased lines, not the stock.

Mr. JOYCE. I do not have that data ready at hand.

Mr. WARREN. Then, as I understood you—I just want to make sure about this—the figure given as rentals in your fixed charges includes both the interest on the funded debt on the leased roads and whatever they have available for dividends on the stocks of the leased roads also.

Mr. JOYCE. Yes; excepting only where we have directly guaranteed or taken over the payment of the fixed charges or the interest on the underlying debts. Wherever we have done that it is set forth as interest.

Mr. WARREN. But that you have not done to any great extent, I think you said.

Mr. JOYCE. There is a list there in that report of the fixed charges that we have undertaken, I think on page 3 or 4 of the 8-year reports.

Mr. WARREN. There is a list of the funded debt on page 6.

Mr. JOYCE. Yes; that is it.

Mr. WARREN. Have you assumed the obligation of all of that?

Mr. JOYCE. Yes.

Mr. WARREN. And that appears in the interest charge?

Mr. JOYCE. Yes.

Mr. WARREN. For the year?

Mr. JOYCE. That is right.

Mr. WARREN. Then the rentals are additional to that?

Mr. JOYCE. Yes.

Mr. WARREN. And that, of course, is additional to the interest on your own issues of securities?

Mr. JOYCE. On our own funded debt of \$16,000,000.

Mr. WARREN. On the wages—if I understand you, you have increased the wages from 48 cents, the maximum for the surface trainmen, to 58 cents?

Mr. JOYCE. Yes.

Mr. WARREN. A little over 20 per cent?

Mr. JOYCE. Yes.

Mr. WARREN. When was that effective, Mr. Joyce?

Mr. JOYCE. I do not know the exact date, but it is within the last three months.

Mr. WARREN. It is since the 1st of July?

Mr. JOYCE. I think so; yes, sir.

Mr. WARREN. That is based on the new rate in Chicago and Detroit?

Mr. JOYCE. Yes; it is based on—

Mr. WARREN. Those, I think, were all since that date.

Mr. JOYCE. Yes; there were two or three increases there, and each time that the other cities increased we increased to keep our average.

Mr. WARREN. To keep pace—

Mr. JOYCE. To keep our agreement with the men. As soon as the announcement was made of an increase in Chicago, the next day or that day that the announcement was made we announced that our men would be increased accordingly.

Mr. WARREN. These figures which appear in the printed report showing the earnings and expenses for six months are probably based on the old wage rate of 48 cents.

Mr. JOYCE. For eight months, do you mean?

Mr. WARREN. For six months. That would be to July 1, I think.

Mr. JOYCE. To some extent; to the extent that those wages applied; yes, certainly.

Mr. WARREN. I do not suppose you have made any estimate of what the effect of that increased wage rate in the last half of this year is going to be on your income; have you?

Mr. JOYCE. Only in a general way—in the way that men operating a property have some hunch or sixth sense of determining whether they are going to get through.

Mr. WARREN. When you told Mr. Meeker that Mr. Mitten hoped to get by with the 5-cent fare, did you mean including the payment of a 5 per cent dividend this year?

Mr. JOYCE. Yes, sir.

Mr. WARREN. Notwithstanding that increase in wages?

Mr. JOYCE. Yes.

Mr. WARREN. I notice in Mr. Mitten's statement which you read, near the end of it, this: "It seems only just that the proper return on that sum representing the amount which would cost the city itself to reproduce the property used as usable in transporting the people." Has any determination ever been made of what that value is in the case of your company?

Mr. JOYCE. No.

Mr. WARREN. It is not one of the companies that has had a valuation?

Mr. JOYCE. No; it has never had.

Mr. WARREN. So that you could not tell how that would be?

Mr. JOYCE. No; we can not.

Mr. WARREN. Except what you did say in your direct statement?

Mr. JOYCE. That is true.

Mr. WARREN. Have you any idea what Mr. Mitten's idea is of a proper return there; what he means?

Mr. JOYCE. I have not heard him say positively, but I have never heard him say that the policy of the Pennsylvania Commission, which seems to be 7 per cent on the utilities that have so far come before it—and I may say that there have not been any adjudications of street-car cases, down to the fineness of determining the rate of return—but in the other utility cases which have come before the commission it has seemed to establish a policy of allowing 7 per cent, and I have never heard Mr. Mitten complain that that was low. I can not quote him as to whether he considers that sufficient for street railways.

Commissioner WEHLE. Does that mean 7 per cent net?

Mr. JOYCE. Seven per cent fair return on the value of the property. That would mean 7 per cent out of which to pay fixed charges and dividends.

Commissioner WEHLE. The valuation as of what time?

Mr. JOYCE. Under the public-service-commission law in Pennsylvania the commission is allowed great latitude as to the basis of

valuation. In fact, the question is left so open that the commission is practically free in that regard, and nobody as yet—well, I may say that there is no case so far decided by that commission that commits it to any particular policy on that. Some say that they get, from the commission's opinions, that it leans toward the original-cost method, and some others say that it leans toward the reproduction-cost method, present prices; but it is difficult to obtain that from the reports.

Commissioner WEHLE. Then, when Mr. Mitten said that 7 per cent on valuation was all right or seemed to him proper, he may have been speaking of 7 per cent on original cost?

Mr. JOYCE. I do not know that he has ever said that 7 per cent is proper. I do not say that he does not consider it, though.

Commissioner WEHLE. I beg pardon. I understood you in your answer to Mr. Warren to say that Mr. Mitten had thought that 7 per cent was a proper figure for the net revenue on valuation.

Mr. JOYCE. My answer was that I had never heard Mr. Mitten complain that 7 per cent, which seems to me the allowance of the commission in other utility cases, was low. Now, there has not been a street-railway case before the commission where they had to adjudicate down to the fineness of determining what would be a fair return, so that that is still open in Pennsylvania.

Mr. WARREN. Have you any idea what Mr. Mitten's view of depreciation is, how it should be taken care of and what allowance should be made for it?

Mr. JOYCE. I know that his view is that a very ample provision should be made for renewals and replacements out of gross revenue, and when he examined the property in 1910 he estimated that it would require 15 per cent of the gross to take care of renewals and replacements and maintenance; and a fund equivalent to that amount was created by yearly contributions. Now, against that fund there were charged those items that the management considered to be proper charges against that sort of fund, with the result that there was developed there sufficient to take care of many of the large renewals in equipment after the first big purchase of equipment under the \$10,000,000 bond issue in 1911.

Mr. WARREN. And that fund is the one that shows in the balance sheet under renewals?

Mr. JOYCE. Yes; that is the fund.

Mr. WARREN. Renewals, \$1,126,801.

Mr. JOYCE. Yes; that is the fund.

Mr. WARREN. Has that allowance been increased at all with the increased cost of materials and labor of the last few years?

Mr. JOYCE. No, sir.

Mr. WARREN. It remains the same—15 per cent?

Mr. JOYCE. I believe there has been a change in it due to that increased cost, a change in that the costs are now charged directly against the revenue. Of that I am not certain.

Mr. WARREN. Costs of maintenance, etc.?

Mr. JOYCE. Yes.

Mr. WARREN. But you think those total charges are still kept within the 15 per cent?

Mr. JOYCE. I am not able to answer that.

Mr. WARREN. They apparently were last year, if I read the report correctly. When this increase was made in wages of trainmen was an increase also made to the other men, miscellaneous—

Mr. JOYCE. Yes, sir; throughout the company.

Mr. WARREN. All the employees?

Mr. JOYCE. Yes.

Mr. WARREN. Apparently your earnings are not running high enough to make any such a return as 7 per cent. As I understand, you have been paying, since 1915, 5 per cent on the rapid-transit stock?

Mr. JOYCE. Yes.

Mr. WARREN. And the rate of interest on a great deal of your debt, or your underlying debt, is as low as 4 per cent?

Mr. JOYCE. Yes.

Mr. WARREN. Have you any idea how Mr. Mitten would proceed to increase his revenue to the point of getting a return approximating 7 per cent?

Mr. JOYCE. I did not get the question.

Mr. WARREN. I mean, what plan would he adopt to increase his revenue beyond the plan which he has already adopted of introducing these very remarkable economies which he has succeeded in bringing about?

Mr. JOYCE. I do not know.

Mr. WARREN. You do not know his view on that at all?

Mr. JOYCE. No; I do not.

Mr. WARREN. You also spoke of having put on larger cars?

Mr. JOYCE. Yes, sir; in 1912, 1913, and 1914.

Mr. WARREN. And those were substantially larger than the average cars previously used?

Mr. JOYCE. Yes; much larger.

Mr. WARREN. And much heavier?

Mr. JOYCE. Much heavier; much better equipment throughout.

Mr. WARREN. Have they been used long enough for you to form a pretty definite judgment as to whether they increased the track maintenance, owing to their greater weight?

Mr. JOYCE. I have not heard anything to that effect. I do not know.

Mr. WARREN. In this Exhibit C—

Mr. JOYCE. Mr. Fairchild called my attention to the fact that the new car introduced in 1914 was not heavier than the car that it superseded, but that the seating capacity was increased.

Mr. WARREN. Simply a larger seating capacity, without any greater weight?

Mr. FAIRCHILD. A much lighter car.

Mr. WARREN. Were they both double truck?

Mr. FAIRCHILD. They were both double-truck cars, but by adopting—if I may be permitted, Mr. Chairman—

Mr. WARREN. Yes; go on and explain.

Mr. FAIRCHILD. By doing away with the rear platform as an exit or entrance and continuing the seats in a curve around the rear platform, the new type of car having its exit and entrance by way of the front platform, the seating capacity of the car was very materially increased, but the length of the car over all was practically the

same—about 50 feet over all—and the weight of the car was reduced about 900 pounds per seat as against the weight of 1,200 pounds per seat for the type of car that we found in Philadelphia when we came there.

Mr. WARREN. In Table C-2, which is on pages 8 and 9 of the Three-Cent Exchange case, giving the increase in costs of various units of materials, have you had occasion to make up any weighted average of the increase of cost of materials, taking those which are used, the quantities ordinarily used by the street railway?

Mr. JOYCE. No; that has not been done.

Mr. WARREN. You have not done that either, Mr. Fairchild?

Mr. FAIRCHILD. We have some studies, but we have not any figures.

Mr. WARREN. It makes a very interesting figure, and I wondered whether you had it.

Mr. FAIRCHILD. The Government reports, though, do show that on many items.

Mr. WARREN. But not as applied to our use though.

Mr. FAIRCHILD. No. That would be a very interesting study.

Mr. JOYCE. I wish at this point to correct an answer I made to Commissioner Mahon with regard to the hours of labor in the shops. The shops have recently been placed upon an eight-hour basis.

Commissioner MAHON. How long ago?

Mr. JOYCE. Within the last three months, I believe. Also at the time of the rerouting there was a guaranty to the men who were put back on the extra list at that time of a minimum wage of \$12 per week, which at that time was considered a fair wage.

Commissioner MEEKER. These men who were put back were guaranteed a wage of \$12 a week?

Mr. JOYCE. Yes.

Commissioner MAHON. What are your hours for trainmen now? What hours do they work?

Mr. JOYCE. I do not know.

Mr. WARREN. Do you know what their outside time is?

Mr. JOYCE. I think the maximum outside is 14 hours. I am not able to give you data on that, but I shall be glad to supply it.

Mr. WARREN. If you take your revenue passengers only, counting them once, not counting them twice when they use a transfer or an exchange, then your average fare would be over 5 cents, would it not?

Mr. JOYCE. Something over, I would say; yes.

Mr. WARREN. I am much obliged, Mr. Joyce.

The CHAIRMAN. Did you work for the Pennsylvania Public Service Commission?

Mr. JOYCE. Yes; I was chief accounting officer of the commission for five years.

The CHAIRMAN. How long have you been with this present company?

Mr. JOYCE. Since April 1, this year.

The CHAIRMAN. And what is your position?

Mr. JOYCE. Special assistant to Mr. Mitten, the president.

The CHAIRMAN. Are there any further questions of this witness?

Commissioner WEHLE. Does the outstanding capital stock of the Philadelphia Rapid Transit Co. represent cash?

Mr. JOYCE. Yes; that \$30,000,000 is cash.

Commissioner WEHLE. Is that the entire common stock?

Mr. JOYCE. That is the entire stock of that company.

Commissioner WEHLE. Is there any outstanding stock on which this 5 per cent dividend is being paid that does not represent actual cash put into the company?

Mr. JOYCE. No.

Commissioner WEHLE. Have there been any reorganizations from time to time of the Philadelphia street-railway interests?

Mr. JOYCE. Yes. This afternoon before you arrived, Mr. Commissioner, I gave a brief history of the street-railway transportation in Philadelphia, detailing the various combinations that has been made.

Commissioner WEHLE. I am sorry I missed that. Then, the 5 per cent dividend is being paid out on actually invested capital?

Mr. JOYCE. Yes, sir; that \$30,000,000 is conceded by all, even the most virulent critics of the rapid-transit company, as being paid.

Commissioner WEHLE. Does that \$30,000,000 represent a scaling down or reduction as the result of all these combinations?

Mr. JOYCE. No; that is \$30,000,000 of new money put into the company, put into the rapid-transit situation in Philadelphia, and that \$30,000,000 went without dividends until 1915.

Mr. WARREN. Did that go into the construction of subways and elevated?

Mr. JOYCE. Some of it went into the subway construction.

Commissioner WEHLE. Mr. Joyce, I was asking you a little while ago whether the \$30,000,000 of common stock in the Philadelphia Rapid Transit Co. represents cash paid in and actually expended by the company in its properties. Your answer, I believe, was that the \$30,000,000 does represent that cash?

Mr. JOYCE. Yes.

Commissioner WEHLE. And can be treated for accounting purposes as fully paid?

Mr. JOYCE. Yes, sir.

Commissioner WEHLE. Are there or not underlying companies to which the Philadelphia Rapid Transit Co. is paying rentals?

Mr. JOYCE. Yes, sir.

Commissioner WEHLE. How many of such companies are there?

Mr. JOYCE. I think I answered that this morning, Mr. Commissioner. I will count them again.

Commissioner SWEET. Twenty-two.

Mr. JOYCE. Twenty-two. I think I answered that—22—this morning. I counted that list I have here.

Commissioner WEHLE. Is there or not any watered stock in those companies outstanding?

Mr. JOYCE. As to whether or not the stock is watered I am not able to say. I have many times heard that charge made in Philadelphia and in Harrisburg. As to the truth of it I can not say positively. No valuation has ever been made of the properties that those companies brought into the system, and therefore no just appreciation of that fact can be obtained without a valuation.

Commissioner WEHLE. The Philadelphia Rapid Transit Co. is leasing some 22 different companies?

Mr. JOYCE. Yes, sir. Not directly to the Philadelphia Rapid Transit Co., but through some of the underlying companies; the structure is a growth of one combination after another until, when the rapid-transit company was organized, there was one operating company called the Union Traction Co.

Commissioner WEHLE. Do these rentals that are paid by the Philadelphia Rapid Transit Co. to the owning companies yield a dividend on all of the outstanding stock in those companies?

Mr. JOYCE. Yes, sir.

Commissioner WEHLE. Do they yield a dividend as high as 6 per cent on all of that stock?

Mr. JOYCE. Yes, sir.

Commissioner WEHLE. Do they yield a dividend higher than 6 per cent?

Mr. JOYCE. Yes, sir; in many instances.

Commissioner WEHLE. How much higher?

Mr. JOYCE. Some of them go as high as 28 per cent—the smaller ones.

Commissioner WEHLE. How much water there may be in the stock of these companies, you do not know?

Mr. JOYCE. I do not. You will understand that when a company leases its property its outstanding stock may not be an adequate measure of the value of its property.

Commissioner WEHLE. Yes.

Mr. JOYCE. The outstanding stock may be \$500,000, where the value of the property may be ten times that; and if it were capitalized at the real value of the property the return would be smaller.

Commissioner WEHLE. But, at any rate, the net result in net revenue of the 5-cent fare in Philadelphia to-day is sufficient to pay 5 per cent on the \$30,000,000 common stock of the Philadelphia Rapid Transit Co. and at the same time pay a dividend of from 6 per cent all the way up to as high as 28 per cent on the common stock of all of the 22 underlying companies which are getting the benefit of the operation of the Philadelphia Rapid Transit Co. through receiving rentals, and of the common stock so belonging to the underlying companies there are varying reports as to the amount which is watered stock; that is, which does not represent actual money put into the properties?

Mr. JOYCE. That is right, sir.

Commissioner WEHLE. And you have no idea how much of that stock is watered stock?

Mr. JOYCE. I have not; and I do not believe that it has ever been properly presented in any proceeding, although it has frequently been referred to.

Commissioner WEHLE. I think that is all.

Commissioner GADSDEN. I would like to ask one question that has been suggested to me there: Mr Joyce, if a valuation were made of those properties as of to-day, don't you think it might be likely that the value of the property would equal, if not exceed, the capitalization?

Mr. JOYCE. Yes, sir; exceed.

Commissioner WEHLE. What kind of valuation are you now discussing—a valuation based upon the present cost of reproduction or a valuation based on the original cost of production?

Commissioner GADSDEN. He means the value of the properties to-day; do you not, Mr. Joyce?

Mr. JOYCE. I mean the value of the property to-day. I don't know what you mean by the value of the property under original conditions. You would have to broaden that a bit to get my mind clear on it.

Commissioner WEHLE. Well, I was only asking you to amplify your answer to Mr. Gadsden a little more by defining what kind of valuation you had in mind—whether it was valuation based upon the original cost, whether it was a cost valuation, or whether it was a valuation based on present cost?

Mr. JOYCE. That would depend, Mr. Commissioner, if you please, somewhat upon what definition you would place upon "original cost"; and there are as many definitions of that term as there are men who talk about it.

Commissioner WEHLE. I am simply wondering whether you could make your answer to Mr. Gadsden a little more definite.

Mr. JOYCE. Yes. My answer to Mr. Gadsden is that taking things as you find them to-day, the property will inventory and appraise higher, far higher than its outstanding issues.

Mr. WARREN. Put it in another way, if there were no property there, and the people of Philadelphia wanted just such a transportation system as they now actually have, it would cost them the entire capitalization to get it?

Mr. JOYCE. And more, yes. It would inventory higher than the present capitalization. I have no doubt on that point.

Commissioner GADSDEN. Is there any class of property that can be bought in the market to-day at what it cost originally?

Mr. JOYCE. No.

Commissioner GADSDEN. Is not everything sold on current market prices?

Mr. JOYCE. That is true.

Commissioner GADSDEN. Is not that the economic law that governs all property, as far as you know?

Mr. JOYCE. Yes.

Commissioner MAHON. Is it not true that many of these old organizations can be traced back into horse-car days?

Mr. JOYCE. Yes.

Commissioner MAHON. Has not that 28 per cent many times paid for the actual valuation of this property?

Mr. JOYCE. The instance in which that rate amounts to 28 per cent, Mr. Commissioner, may be an isolated case and in the total capitalization or the total value of this property would be a very small proportion of the whole; so that you give that 28 per cent there an importance that is not due it; when I say "you," I do not mean you individually, but you impersonally, as anybody who comes to the question.

Commissioner MAHON. Take your Ridge Avenue property: My recollection of that and its valuation was that 15 per cent was being paid upon that for many years.

Mr. JOYCE. I believe that you are right, Commissioner. That was a particularly prosperous company, had good territory and paid good dividends. Now, to what extent the capitalization there represented the true value of the property, I don't know.

Let us see. Ridge Avenue was capitalized at \$750,000. That \$750,000 may have represented the value of that property and it may not. If it got 15 per cent on \$750,000, and the actual value was, we will say, \$2,000,000, that would be less than 7 per cent on \$2,000,000.

Commissioner MAHON. There is not much danger of that being \$2,000,000 going back into its horse-car organization, is there?

Mr. JOYCE. I don't know, sir.

Commissioner MAHON. So, if its real valuation was \$750,000 and 15 per cent was paid upon that for the last 30 or 40 years, it has been paid for over and over several times?

Mr. JOYCE. That, sir, is a fallacy. You may as well say that, when I put money in the bank and get 4 per cent per annum, after a certain number of years the bank has paid me all my deposit, and therefore owes me nothing.

Commissioner MAHON. Well, there are two ways of looking at it, of course, when you go back into the horse-car days. If I went out to-day and bought a horse and gave \$100 and my note for it, I would pay it all. We know that this property—horses and cars and everything else—has gone out of use for many, many years, and there is no reason why the people to-day should be paying dividends upon the dead horses of 40 years ago.

Mr. JOYCE. That also, sir, is a fallacy, because those horses and those old cars have been replaced by other means of locomotion and transportation, and you can not say that you are paying a return on those dead horses.

Commissioner MAHON. According to your arrangement, you have been raising capital to replace that and are still charging upon that, are you not?

Mr. JOYCE. That goes back, sir, to the question of investment of income in property. It may be that we start out with a small company and earn enough to replace that investment with more modern equipment, and to perhaps add something to it out of income. The question as to whether that income belongs to us or not is germane there.

Commissioner MAHON. Don't you think that any business ought to establish a sinking fund that would take care of and write off its depreciation?

Mr. JOYCE. Its depreciation, to keep up the property?

Commissioner MAHON. As it wears out, yes.

Mr. JOYCE. Yes; that is undoubtedly sound.

Commissioner MAHON. And that was not done in the street-railway business, was it?

Mr. JOYCE. It was not done specifically and called depreciation; but if you take a depreciation fund and observe its operation for a period of years, you will come to about this result: You will set aside each year a certain proportion of your earnings for depreciation, and then, year by year, you make renewals, and you will charge the renewals against that fund, instead of against current operating costs; and the result will be that that depreciation fund will take up the renewals and the extraordinary costs, and that at any one time, if you strike a balance, the amount in that depreciation reserve fund will be comparatively small, because you have used it to replace worn-out properties.

Now, you will get exactly the same result if, instead of charging against the depreciation fund these renewals, you charge them against current income. The result will be that, instead of an even flow of your operating expenses, you will have a stream that at times will bulge, whenever you have to make an extraordinary replacement, such as the purchase of 100 or more cars, that you have to charge that against revenue that year, and your revenue will be distorted.

If you have a depreciation fund to take it up, it will take that much of the depreciation fund and the flow of your operating expenses will continue normal.

Commissioner MAHON. Well, that is recent financing of railroads. Do you recall where the bonds have been issued and arrangements made to take up the bonds?

Mr. JOYCE. That, I believe, is the common practice in public-utility finance—to renew and replace existing issues with new issues as they fall due.

Commissioner MAHON. Counting on appreciation taking care of depreciation?

Mr. JOYCE. No, sir.

Commissioner MAHON. That has been the policy, has it not, up to recent years?

Mr. JOYCE. I don't know. That is another question, Mr. Commissioner, if you will permit me to say so. The renewal of existing issues by the issue of other issues to take their places is not involved in depreciation. The steam railroads have never—or at least it has not been their policy generally to keep sinking funds such as industrials are obliged to keep by the bank. If an industrial goes to a bank and asks for a bond issue, the bankers insist that he have a sinking fund sufficient to retire the bond at maturity. If a public utility goes to a banker, the banker is content if he keeps up the property and leaves to the future the arrangement for refunding that issue; so that there is that difference between public utility and ordinary business.

Commissioner MAHON. But there was the consideration of taking up bonds and the issuing of bonds for street railways in their early history?

Mr. JOYCE. I believe it was the policy to refund an issue as it fell due.

Commissioner MAHON. Was it not a fact that they counted on appreciation taking care of depreciation, and the reissue of bonds to take up the old bonds, and add the burden on the property?

Mr. JOYCE. That I do not know, sir; but the policy of retiring one issue by the issue of another is not involved in offsetting depreciation with appreciation.

Commissioner MAHON. Well, you and I might argue the question all day long. I do not care to enter into an argument. I simply wanted to ask you those questions.

The CHAIRMAN. You have made no study to show the original cost of these subsidiary or underlying companies?

Mr. JOYCE. We have not, sir.

The CHAIRMAN. And your statement that the securities might be less than the present value of those properties is simply hypothetical?

Mr. JOYCE. No, sir. We know about what the total of the securi-

ties amounts to, and we can make an estimate of the probable inventory value of the property; and there is no hypothesis there.

The CHAIRMAN. Has that been done?

Mr. JOYCE. It has not in exact figures, in the way that we are obliged to do that kind of thing for rate investigations; no, sir.

The CHAIRMAN. There are \$750,000 outstanding against this Ridge Avenue property?

Mr. JOYCE. Yes.

The CHAIRMAN. How many miles long is that property?

Mr. JOYCE. I do not know.

The CHAIRMAN. You do not know what the capitalization is per mile?

Mr. JOYCE. I do not.

The CHAIRMAN. That is all.

Commissioner WEHLE. What do you think the total value to-day is of all the properties that are operated by the Philadelphia Rapid Transit Co.?

Mr. JOYCE. I do not know. That is a broader question than I care to answer. That would involve an exact valuation of the entire property, and that has not been done.

Commissioner WEHLE. The 5-cent fare that Mr. Mitten is operating under in Philadelphia is paying the 5 per cent dividend on \$30,000,000 and is also paying from 6 to 28 per cent on the outstanding stock of all of these other companies; that is correct, is it not?

Mr. JOYCE. Some of those go as low as 4 per cent, Mr. Commissioner.

Mr. WARREN. There is a large funded debt is there not, that carries a pretty low rate of interest?

Mr. JOYCE. Yes; and some of those dividends go as low as 4 per cent. You might be able to get some appreciation of that by considering the total paid in fixed charges and considering the mileage.

Commissioner WEHLE. But the capitalization of all of these underlying companies you do not know?

Mr. JOYCE. I do not. I have not it here with me now. That ought to be available to you if you wish it. I am sure the company will be able to supply that data.

Commissioner WEHLE. It would be interesting to have it, I think, for the record—would it not, Mr. Chairman? Or do you think we are not going deeply enough into the Philadelphia situation to be assisted by it?

The CHAIRMAN. Does not the statement from which you read showing the number of underlying companies also show the capitalization?

Mr. JOYCE. It shows the outstanding capitalization; but to prepare a statement showing the entire capitalization, you would have to take that capital stock and whatever there is of bonds and whatever there is of stock of the rapid-transit company itself and its bond securities; and it would be such a presentation as I would not care to make here on the witness stand.

The CHAIRMAN. If the commission desires that statement you will be informed.

Mr. JOYCE. Yes; and we will be ready to supply it.

Commissioner MAHON. You say there are 22 companies that you spoke of. Originally, then, there must have been some 52 underlying companies that were consolidated into those 22 before the consolidation?

Mr. JOYCE. Yes, sir. I think the tree entirely embraces about 68 companies. We refer to it as about 52 companies, because many of the companies are mere paper companies, and, by one combination after another, they were reduced, and 22 has no significance in itself; it was only an accident that it happens to be 22 at the instant at which this was struck.

Commissioner WEHLE. Then some of the paper companies have outstanding stock?

Mr. JOYCE. Stock held by the other companies.

Commissioner WEHLE. That stock is also getting dividends paid on it; is it not?

Mr. JOYCE. No; it would be stock held by some of the active companies, and would not get a specific dividend on that stock. The capital of the owning company would be based upon the ownership of that stock, and, therefore, no dividend on that underlying stock. You get the idea?

Commissioner WEHLE. Yes; I think so.

The CHAIRMAN. Are there any further questions of this witness?

I believe that is all, Mr. Joyce.

(Witness excused.)

The CHAIRMAN. Mr. Ogburn, is there anything you would like to present before Mr. Jackson proceeds?

Mr. OGBURN. Secretary Baker, as you recall, told you of the very excellent study which has been made of the street-railway problem by Mr. Thomas L. Sidlo, of Cleveland, and he indicated to you that Mr. Sidlo would be willing to appear before the commission and testify if the commission desired it.

The CHAIRMAN. Who is Mr. Sidlo?

Mr. OGBURN. He is an attorney of Cleveland; he is a law partner of Secretary Baker and a man who has given a great deal of study to the Cleveland traction problem. Mr. Sidlo was not able to appear here without considerable inconvenience to himself, as he was engaged in a very important law case this week. He did send this statement, which is contained in about five pages, and I understood it was your desire that this statement, sent really by Mr. Baker himself, be read into the record of this proceeding.

The CHAIRMAN. You may read it.

Mr. OGBURN. This statement is as follows [reading]:

A new approach to the problem, or properly speaking, the plight of the American street-railway industry must be made. We may as well forget the past, for it merely revives controversy, and simply profit by its teachings. In the prolonged inability or unwillingness to understand each other, it is doubtful which side has been oppressed more severely. One fact stands out clearly—needless hardship has been caused on each side which experience should henceforth make impossible. Whatever may have been its shortcomings in the past, there is no doubt the street-railway business has been thoroughly chastened by events of recent years. As for the public, after succumbing again and again to the sweet strains of the charlatan, it has at last awakened to the truth of that ancient axiom that one can not expect to get something for nothing.

The street railway is a public utility, existing primarily for public use and convenience and indispensable to an adequate municipal life. The people

who have put up the money to make and sustain so useful a social agency are entitled to have their investment treated as a legitimate one and deserving of an adequate return. This is, of course, platitudinous, and yet it will bear repetition in order to emphasize upon everybody's mind the mutuality of interest involved in providing and maintaining modern street-railway service. So long as private ownership continues this reciprocal condition will persist, viz, the duty of the utility to serve and the moral obligation of the community to pay, and every effort to disregard it will result in the future, as it has in the past, in costly folly. When municipal ownership comes, if it does come, the industry is transferred from private to public hands, the partnership relation will be terminated, but the fundamental principle will remain. Inasmuch, however, as this eventuality is still quite distant, we may as well confine our attention to things as they are. Municipal ownership is surely no panacea and there is nothing automatic or assured about its success. It is highly desirable when and where it works, it is highly undesirable when and where it doesn't work. Its desirability is fundamentally a practical question, not necessarily ethical or political.

If, therefore, the problem is tackled in the cool atmosphere of justice, certain lessons from the past are manifest and certain steps or methods as to the future appear to be wise and promising.

VALUE OF RATE OF RETURN.

Underlying the entire situation is the need for a mutual, frank, and openly-arrived-at finding of the real value of each street-railway property and a fixing of a proper rate of return thereon. Except in some isolated cases, we have no such plan of procedure to-day. Valuation and capitalizations usually are simply what they happen to be. Even when fixed judicially, or determined by the quasi-public agencies like State commissions, they seldom have a penchant for accuracy or equity. When they have been fixed by politicians, or that elusive thing called public opinion, they have usually been dangerous and unfair. When they have been fixed by restrained action of the companies, they have been all that the traffic would bear. In any event they now generally appear as a misshapen thing that has grown and expanded mushroom-like in the periods of public generosity or carelessness and been dwarfed and stunted during intervals of public unreasonableness and indignation.

Certainly there is nothing scientific or well balanced about the capital account of the average American street railway. Capital value must be revamped and rewritten, but not necessarily underwritten. It must be simplified and clarified so as to be understandable, must bear some real relation to property or plant value, and when determined, be frankly and conclusively accepted by the owners and by the community. Until this is done no street-railway property anywhere will do otherwise than continue to stumble along in its public policy, in its rendition of service and in its financing. When it is done, however, the first permanent and tangible step will be taken in the solution of the problem. So far as the public is concerned, this is a job that can best be left to some one other than the politician or the professional reformer. So far as the company is concerned, the occasion is not one for the professional expert or professional advocate. It is, on the contrary, a job for outstanding and representative citizens in each community, who from their disinterestedness can command both the confidence of the public and the company, who are so circumstanced as to be able to do the job without fear or favor and whose decisions both the community and the company are bound to agree shall be binding and unimpeachable.

To the same body should be left the determination of the question of the rate of return. If left alone the rate would sooner or later be fixed by the sway of economic factors. Consequently the real function of this board would be to determine what an investment of this character, surrounded by the circumstances and conditions which play upon it, must command in the way of a return in order at all times to invite investing capital. Now, as to a "fair" rate of return. Whatever may be said of an unfair rate of return, there is no such thing as a fair rate of return. If so, then which is fair, fairer, or less fair—a 4½ per cent return on a United States Liberty bond, a 5 per cent return on a Pennsylvania Railroad bond, a 6 per cent return on Cleveland Railway stock, a 7 per cent return on a Monongahela Traction & Light short-term note, or an 8 per cent return on an Empire Gas & Fuel preferred stock? The first is the prime security of the world, the remainder are quasi-public securities

of varying standards. From the standpoint purely of return, which represents the fair rate? Can anyone say? He must be a modern oracle of Delphi who would have the temerity to answer. Frankly, while there are certain rates of return that are manifestly unfair, i. e., such rates as are oppressive or usurious, there is no such thing as a fair rate of return. Until we are prepared to assign to some man or to some group of men in each community the patent of authority for finding and fixing some rate which he or they will anoint as fair and reasonable, we might as well rest in the assurance the rates of return are fixed by the uncontrolled and inexorable competition of persons like you and me who have money to invest or speculate with and who are still free under the present rules to place it anywhere we please. Hence the task of this body will readily be to fix a return (which may vary) that will insure keeping the property financed and growing.

CHARACTER OF THE SECURITY ISSUED.

It is unnecessary to rehearse the difficulties, embarrassments, and tragedies in street-railway history that have resulted from financing by means of mortgage indebtedness. It is pretty generally agreed by everybody who has made a study of street-railway finances that it will be a happy day when the lien holder is eliminated from street-railway ownership. His presence has been as hurtful to the company as to the community. He has been the chief cause of the spirit of absenteeism in street-railway management, and has probably done more to bring the industry into disrepute than the old-fashioned "public-b damned" operator. But how eliminate him? With an efficient cost-of-service plan, mortgage bonds are unnecessary as a mode of financing. A property can be financed by selling shares, and selling shares exclusively. And these can be sold to purchasers living in the community in which the utility is located and should be so sold. The property will thus require an alert, informed body of owners, who will desire, along with security and certainty of return on their investment, that proper and adequate service shall be rendered the community. Such a body of security holders, and none other, will see to it that the property has a management that recognizes and is able to administer the profit-making aspect of the job not only, but the public-service aspect as well. The value of this sort of ownership arrangement has been eminently demonstrated in Cleveland. The fact that at the present time there is relatively no bonded indebtedness, but on the contrary a predominant body of resident shareholders is making the Cleveland plan a success as much as any other factor. The statistics of the ownership of the Cleveland Railway Co. are worth incorporating here:

CAPITALIZATION OF CLEVELAND RAILWAY CO.

First mortgage, 5 per cent bonds, 1931, amount outstanding-----	\$5,495,000
Capital stock outstanding (Aug. 1, 1919)-----	\$28,724,400
Number of stockholders, Mar. 21, 1910-----	2,732
Number of stockholders, June 12, 1919-----	5,202
Average amount per holder, Mar. 21, 1910-----	\$5,372
Average amount per holder, June 12, 1919-----	\$5,520

On June 12, 1919, 67 per cent of the stockholders owned less than \$5,000 each of capital stock; 55 per cent less than \$2,500 each. Those who owned \$5,000 or less each constituted 75 per cent of the whole number of stockholders; those who owned \$2,500,000, or less, 57 per cent.

Ninety-one per cent of all the stock is owned by residents of Ohio. On January 1, 1919, of a total of 5,168 stockholders, 4,619 were residents of Ohio, and of this number 3,522 resided in Cuyahoga County. In other words, about two-thirds of all of the company's stockholders reside in Cleveland or its environs.

It is noteworthy that the settlement plan that has been in process in Toledo, the proposed Community Traction Co., contemplates this type of local ownership as one of the chief arrangements. The time is ideal for creating, in each community in this country, through the agency of the stock of the local street-railway company, an investment bearing a return larger than that earned by savings-bank deposits, possessing inherent certainty and security and providing an open and ready channel for investment funds of those who have neither means nor leisure for studying the investment field.

RELATION BETWEEN COMMUNITY AND COMPANY.

The arrangement between the community and the company should be founded upon the basis of service at cost and control of service vested in the community. The latter should be permitted to require any quantity or quality of service deemed necessary or desirable for its proper life and growth, provided, however, that it is ready to pay, in the shape of an adequate rate of fare, whatever cost its service requirements shall entail. There should be no limit upon the city's right to prescribe service, except obvious impossibility of performance. At the same time there should be no limit to the company's right to collect such a rate of fare as will pay for the cost of service ordered.

CONTROL OF SERVICE.

Control of service should be exercised through the agency of a competent technical representative, who should be equipped with the necessary information and facilities to enable him to prescribe the kinds and amounts of service that changing conditions of community life require. Service orders should be final and without appeal by the company, except where they are obviously inordinate or impossible to meet, or where the city is unwilling or unable to pay the cost of the service it is requisitioning.

COST OF SERVICE.

This cost should include the labor charge, the operating charge, the power charge, the maintenance charge, etc., all according to the market. In addition, it should include the "money charges"—that is, the return to the company's security holders on their investment. This return should not be "fair" or "fixed," but it should be certain and in accord with the prevailing cost of money for this kind of capital requirement. In other words, it should be subject to ascension or declension, according to the necessities of the money situation; perhaps, however, with a fixed minimum which should always be assured. The reason for this is obvious. The cost of money is just as important and inevitable an item entering into the cost of service as labor and material and is as susceptible to the control of economic influences. This fact should be recognized and accredited. This applies especially where the type of security is to be common shares, either exclusively or predominantly, and where the effort will be made to keep these shares actively at par or in the region of par, or in a price range that will be sufficiently attractive to invite fresh capital. The rate of return should not be susceptible to frequent or violent changes. This might give a gambling quality to the stock, but the rate should not be so immutably fixed as to make it impossible to recognize and meet changing money-market conditions.

THE LABOR SITUATION.

This is the most vexing and obstreperous problem confronting the street-railway industry. From present indications it is likely to be still more troublesome in the future. No adequate solution has yet been found. In recent times street-railway employees have found the strike an unfailing weapon to enforce their demands. At present it seems as if there were no definite limit to its possibilities. Some system of bonuses or some plan of "profit sharing" must be devised to bring the employees into the partnership relation and to force them thus to accept the responsibility their type of employment owes to the public. The need for some such solution is irresistible unless the present situation with regard to wages changes in a very marked way. In recent years street-railway labor although not of a high order of skill, has not been in competition with the rest of the labor market. Wages have been determined by the coercive strength of the "local." The suggestion that seems most hopeful at this time contemplates a system of liberal annual percentage bonuses, based on a schedule of seniority and continuity of service, and with no other "strings" to the plan.

An aspect of the problem that is not at all clear relates to the question of the extent to which public officials should take a hand in labor disputes. From one standpoint a "hands-off" policy seems highly desirable. This has the elementary advantage of leaving the decision of the dispute to its merits. On the other hand, allowing the interested parties to fight it out to the bitter end

usually means public suffering, an emerging of the mob spirit, violence, etc. For that reason it is necessary for the public interest to be represented. The best way to achieve this recognition of the public interest is through compulsory arbitration of all labor difficulties. This method will settle disputes without general punishment, will protect the rights of the employees, and will not seriously interfere with the employment relation or break down discipline. Its introduction in this country has already been delayed too long.

To summarize, then, this memorandum contends for these things as conducive to a permanent and just settlement of the street-railway problem in America:

1. A recognition of the inevitable mutuality of public and private interest in producing street-railway service and in paying in full for such service.
2. Settling the questions of property value and an adequate return to the owners free from demagogery on the one hand, and private greed on the other, and referring that determination to representative, disinterested citizens.
3. Banishing mortgage indebtedness as rapidly as possible in favor of stock ownership by the people of the community served.
4. Service at cost, but not less than actual cost, and unlimited control of service by the community.
5. Competent, technical administration of the problem of service by a qualified representative of the public.
6. In order to insure uninterrupted service, making the employees responsible partners in the enterprise, by offering adequate money rewards for length of service, and establishing compulsory arbitration of all labor difficulties.

THOMAS L. SIDLO.

CLEVELAND, OHIO.

The CHAIRMAN. Mr. Jackson, you were to have taken the stand, but perhaps we had better adjourn now until 8 o'clock to-night. If you will be here then we will hear you at that time.

(Whereupon, at 4.55 p. m., an adjournment was taken to 8 p. m.)

EVENING SESSION.

The CHAIRMAN. You may proceed, Mr. Jackson.

STATEMENT OF MR. WALTER JACKSON.

Mr. JACKSON. Gentlemen of the commission, before taking up the subject of my paper, or these notes, I would like to advert to a remark made by Commissioner Gadsden. In talking to Mr. Joyce, he asked the question whether it was conceivable that an entire industry could go wrong. Do I interpret that correctly, Mr. Gadsden?

Commissioner GADSDEN. In the operation of the property; yes.

Mr. JACKSON. In the operation of a single property?

Commissioner GADSDEN. In the operation of the property; yes.

Mr. JACKSON. In the operation of an industry?

Commissioner GADSDEN. Yes. They might be wrong on theories or policies, but when it comes to an operating plan—

Mr. JACKSON. I did not understand it in that sense; because I would say that there have been cases where an entire industry has gone wrong on a matter of policy.

Commissioner GADSDEN. On an economic principle; yes. But my question was directed to this: It is conceivable that a whole industry will go wrong in operating that industry, so that you have got to go to people on the outside, for instance, to find out how to operate cars on a street railroad or how to operate a power house?

Mr. JACKSON. On matters of technique?

Commissioner GADSDEN. Yes.

Of course, it is entirely within the bounds of possibility that the whole industry, in fact, the whole generation conceivably will go wrong on an economic principle, so far as that is concerned.

Mr. JACKSON. I had in mind when you made that remark the sad history of the liquor business, because they went on the rocks through their association with worse vices than liquor drinking. It is a fact that, for many years, within the ranks of the liquor business itself there was a great deal of agitation for the clean saloon, and there were plenty of far-sighted men in the business who said, "We are going to be wiped off the face of the earth if we do not quit our evil associations." They were laughed at by the majority, and the result was that the liquor business was wiped out a great deal quicker than any of us expected.

As for the subject of my notes, your commission has heard so many dark things about the electric-railway industry that you must be fairly well saturated with gloom.

Now, I do not come to you with any alkahest or universal solution, but merely with an analysis along certain lines so that your commission or any other commission when it has before it the case of an individual electric railway seeking help, may be able to determine to some degree whether it is worthy of the help of the State.

I do not believe that the public would countenance the subsidization of a private industry, but I do believe that if you can show, as an electric railway, that, granted financial help to do certain things, you could keep the fares down within better limits, or give better service that would warrant a higher rate of fare, you will find the public with you.

The sentiment in the industry on the subject is somewhat divided. I believe a great many of the older men in the business, who have been brought up in the atmosphere of old times, do not seem to think that there is any way out of it. The power of will is lacking, but there are others who are optimistic, who have faith in the American public, and who say, practically: "Let us get down to date and see what happens."

The chief difficulty I have felt about the increased flat fare was that we had become so used to a very convenient single coin that any change from that makes, in itself, a sort of friction; and it is needless to repeat now that the coming of the increased fare has had the dire result of decreasing the usefulness of the electric railway to the public.

Perhaps the larger difficulty of the electric-railway industry is not merely the greatly increased cost of operation due to the war, or accelerated by the war, but the necessity of changing its points of view from that of a monopoly, a monopolistic industry, to that of a business.

When the electric railway was a monopoly it did not have the necessity to progress that is common in any commercial undertaking.

If, for example, an improvement in apparatus were brought before an electric railway, the failure to adopt that improvement would not be as dire and show up in as bad a light the operator as would be the case where a manufacturer rejected an improvement. The rejection of an improvement by a competing manufacturer spells ruin. Rejection of an improvement by a monopoly does not spell

ruin immediately, but spells lower income and poorer service. There is not the same means for checking up whether that monopoly is efficient.

The electric railway had a double handicap as compared with other public utilities. Monopoly, in itself, dulls the spirit of enterprise; but when you add to that the handicap of being obliged to sell your product at a given price regardless of quantity or quality you have a factor that well-nigh makes it impossible for men to exhibit a spirit of enterprise comparable with commercial life.

We therefore find, in comparing various public utilities, that the electric-light and gas man shows a greater spirit of enterprise than the electric-railway man—very often departments in the same company. Apparently the gas and electric men act under the stimulus of competition. Their respective fields overlap to a degree, and they also have the advantage of having something tangible to sell. In addition to selling electricity or gas, as the case may be, they sell utensils, appliances of one kind or another which promote the increased use of the intangible article that they have; but the electric-railway man, who has just one intangible thing—transportation—has not the same incentive.

The electric railways, particularly the larger ones, did not appreciate the necessity of going to a different method of selling their product until the automobile jitney competitor came along.

The CHAIRMAN. Strictly speaking, can you call an electric-railway company a monopoly, in view of the automobile and other competition?

Mr. JACKSON. Not to-day, Mr. Chairman. That is the point I am trying to make—that we are in a readjustment period. A monopoly is changing over into a business; and business implies competition.

That feeling that you could sell your product did not impress itself upon the electric railways until the coming of the automobile jitney competitor. This competitor chose to sell only a certain quantity of transportation, leaving to the electric railway the long rider at the same flat price. It took something of that kind to bring out the illogical system of affairs that had been built up in America.

It stands to reason, of course, that the electric railways alone were not to blame for that. You may say this was an American policy and a municipal policy; the flat fare was very often the price paid for consolidation. Nevertheless it was one of the factors that kept the electric-railway operator from developing into a business man.

With the coming of the automobile competitor, the first effort of the railway operator was to get him off the streets on the plea of unfairness; that the competitor did not pay the same taxes, share the same burdens, and so forth. In fact, it was declared to be a breach of contract to permit him to operate on the streets at all.

Be that as it may, no sooner had the public tasted a better mode of transportation, a greater frequency of transportation, greater speed, greater convenience, that no condition of unfairness at all will cause the permanent elimination of the competing form of transportation.

You can not conceive, for example, that in a city where people are used to getting a jitney every two or three minutes they will permit

the return of a system where trolley cars come at intervals of 10 or 15 minutes. That is inconceivable. They will not permit that. The question of fairness, gentlemen, does not enter at all, because people are swayed by motives of selfish convenience.

I need only call to your attention this fact, that in England, where so many of the tramways are owned by the municipalities, it has been impossible to secure a law that would place the motor bus on the same basis as the street-car. The street-car, operated by the city, pays taxes to the city far in excess of the motor bus, operated by a private company. If the public of England would not permit the taxing of the motor bus to a degree that would make it impossible to compete with the tramway, even though the tramways are owned so largely by the cities, what hope have we that the American public will oblige the privately operated electric railway in that direction?

Some other means must be found to eliminate that competition. That means, of course, is good service, to which I shall refer later.

I also believe that the American electric railway is not a 100 per cent modern electric railway unless it includes any motor-bus services that may be required in the community. In other words, all the popular or mass transportation of a community ought to be under one central direction. That is a lesson that we can study profitably from experiences on the other side.

If the electric railway could not produce mass transportation to-day cheaper than any other form of locomotion, it would be on its way to Dodo Land; but we do know that you can to-day still produce electric-railway transportation cheaper and more satisfactorily than any other kind. It therefore remains to ask what the electric railways of the country can do to produce that transportation more cheaply and then, having produced it more cheaply, sell it instead of offering it.

In the period preceding the war the adoption of improvements held pace pretty well with the slowly rising costs of labor and material.

With the coming of the war period, it must be said that the industry, as a whole, has not accelerated the adoption of improvements as quickly as the rapidly increasing costs of labor and material demanded, nor has it agreed upon any general quality for meeting competition.

For example, it is almost like handling poison ivy to talk to a great many electric-railway men about the bus. It appeared in the hands of a pirate competitor, and therefore they hate it—instead of saying, "Now, this is a tool. What can we do with it?"

It is impossible to offer any universal remedy, or to say that any group of improvements, such as I describe hereinafter, would inevitably pull the railways out of the slough of despond.

There are a great many electric railways in this country that simply have not got enough customers. The grocery business is an essential business, but grocers fail because they have not enough customers. The electric railways, in many communities, are in the same fix. Take, for instance, the cross-country lines of Massachusetts. There is no method of operation. There are no economies that will save roads of that character.

On the other hand, we have a large number of electric railways that are blessed with an abundance of present and possible customers, and it is with them that we have to deal, to see whether they ought not to try some self-help first before crying too much for outside help.

A privately owned undertaking can hardly ask for any other relief from the community than remission of unjust taxes upon itself, and imposition of just taxes upon its competitors, until it has shown that it has exhausted the resources of the art, or that it is willing to exhaust those resources, if the community will help it to get the funds necessary for modernization.

What are those resources, and to what extent have they been applied?

Now, in the operation of an electric railway there are two very large items. One of these items is the cost of power.

A great deal has been done in making our power plants and distributing systems efficient. Very recently there has come the automatic substation which will be a boon to interurban railways, especially in cutting down the cost of attendants, in saving copper, in giving a higher voltage, which means better schedules; so that we may say that in the generating and distributing end electric railways are very efficient. It is a curious fact, however, that in the use of that power electric railways are not as efficient as they might be. Within the same schedules it is possible for motormen to show a variation of 25 to 50 per cent in the use of power. There is no way of making the motorman efficient in the use of power except first by personal instruction and then by the use of some instrument that will check the correct use of energy for a given service. Such instruments have been used abroad for a period of some 15 years, and I would say that in Great Britain and on the Continent the majority of cars have been equipped with devices of that sort. In the United States that development has come later, and to-day we find that not more than 20 per cent of the cars in the United States are equipped with a power-checking device. I would, therefore, say that if an electric railway asked for funds to enable it to purchase devices of that kind it would be a worthy thing to encourage and to help along.

But far and beyond the cost of power is the item of conducting transportation, and, of course, the bulk of that item lies in the platform expense. For many years the electric railway has failed or did fail to consider the true function of a car. The purpose of a car is the manufacture of car-miles. You have got to make car-miles in order to get revenue. Now, if you consider a car in the same light as a machine tool, then anything that you can do to automatize that car means a greater production of mileage. That is what we understand to-day really by the expression, "the automatic car." If you substitute for the slow accelerating control a fast accelerating control, for the hand brake an air brake, for the hand-operated door an air-operated door, for a high step a low step, so on, you are turning a hand-tool operated by two men into an automatic tool attended by one man.

The coming of the one-man operation thus made possible has been a great deal slower than one would expect. There have been a num-

ber of reasons offered, but instead of going too extensively into that for the moment, I wish to present to you some figures obtained by me last week in Terre Haute from Mr. E. M. Walker, general manager of the Terre Haute, Indianapolis & Eastern Traction Co. What Mr. Walker has done in that city can be done on several hundred other properties. I say that confidently because I have been on hundreds of properties in the United States at one time or another. Some three years ago I began making missionary trips, you might say, on this subject. I have followed up each safety-car installation as fast as it was made and tried to settle in my mind whether that car had possibilities for a wider and wider circle of use.

The CHAIRMAN. Under whose auspices were you making this study?

Mr. JACKSON. The Electric Railway Journal. I might say even at home there was not much confidence in it. A good many of the staff said, "That is just a village proposition."

I mention Terre Haute because within the next month or so it will be the first city of 75,000 people to be completely equipped with these cars. You will pardon me if I read directly from this, because I have some interesting figures.

The case of Terre Haute is particularly interesting because it is not even a good street-railway town, according to American city standards. Although its population is 75,000, its passengers per car-mile have been little more than four at any time, so that the earnings under the average fare of $4\frac{1}{2}$ cents were but 21.9 cents per car-mile during 1918 and under the straight 5-cent fare of 1919 have been but 21.95 cents on the older cars and 20.62 cents on the smaller safety cars. Any electric-railway man who is not getting 30 or 35 cents per car-mile even under the 5-cent fare would feel he had pretty poor lines.

A railway which announces its intention to continue on the 5-cent fare despite the comparatively sparse traffic must have done some things worth quoting. It has. On December 1, 1918, the company began installation of these cars. At this writing 31 safety cars are on hand, of which number 25 are in daily use. So popular and economical have these cars proved, in comparison with their predecessors and those still left, that the company has recently placed an order for 25 more to permit all of the service in Terre Haute to be safety-car service.

The most significant feature about this second order is that the money for these cars is being furnished by Terre Haute and Indianapolis bankers. The company had to take the chance in the first instance, but it is able to show the local people what it can do.

Mr. WARREN. What people did you say?

Mr. JACKSON. Terre Haute. In introducing the new operation the company substituted 6 and 7-minute intervals for 10-minute intervals between cars. The improvement in service was made even more marked by an increase in the schedule speed from 8 to 9 miles an hour to 10 and even 11 miles an hour. Inasmuch as these cars are arranged for fast acceleration and fast braking, near-side entrance and air-operated doors and steps, and so on, the schedule speed actually is raised without an increase in the maximum running speed. In other words, these cars are faster because their standing time is

shorter. That, of course, is a very important item in operating on a street with six or seven or eight stops a mile.

The effect of this better service is shown by the reduction of jitneys from 25 to a mere 5 or 6, and it is doubtful if any jitneys will be left after all the cars are of the new type. Still more obvious is the great increase in riding, the surest sign of public approbation. During the period January 1-August 31, 1919, the safety cars of Terre Haute were responsible for 53 per cent of the mileage run. In that period the safety-car lines had an increase in traffic of 43 per cent, which closely paralleled the increase in service offered to the public. It will be shown later that it would have been financially impossible to have offered this increase in service with the older cars operated with two men and no automatic and up-to-date safety appliances.

The traffic statistics of Terre Haute show that the banner year of the past was 1913, when the gross earnings from the passenger transportation were \$435,000. In 1918, with but 4 per cent of the mileage made by safety cars, the approximate gross was only \$367,222, on the basis of 4½ cents per revenue passenger. In 1919, however, the estimated gross will be \$490,000 to \$500,000. In 1913, Terre Haute's population was 66,000 and its average riding index, or rides per inhabitant per annum, on the basis of a 4½-cent fare, 148. In the meantime, the number of licensed auto vehicles has gone to 3,600, or fivefold, and the riding index has gradually decreased. A 53 per cent application of modernized car medicine has already brought the riding increase up to 153, and there is no doubt that a 100 per cent application in 1920 will bring it beyond the palmiest days that Terre Haute ever had.

In 1917 the Terre Haute lines carried 8,366,472 revenue passengers and but 8,160,492 revenue passengers in 1918 at the same average fare of 4½ cents. The up-to-date operation has definitely stopped that tendency downward.

I have said that the best index to popular approval of the service is the increased riding. It may be of some interest to add that Terre Haute is a strong labor town with two newspapers definitely representing labor interests. Also, it is a great mining center. Also, that the cars when first put on the street met with some ridicule, and to this day are referred to as "green bugs." Nevertheless, they made their way.

These cars have certainly justified their name of safety car. For the first eight months of 1919 their average accident cost of 1,000 car-miles run was \$3.86, compared with \$13.51 by the older cars on the basis of 865,000 safety-car-miles run. The average cost per safety-car accident, including repairs, was \$16.72, compared with \$65.78 by older cars. Mr. Walker estimates that the saving in accidents alone is equivalent to a return of 5.9 per cent on the entire investment. Further experience should produce still better record as the operators and the public become better acquainted with the speedier acceleration of these cars. Up to September 16, 1919, Terre Haute's safety cars made 1,000,000 miles without serious trouble from either the electrical or air equipment.

No difficulty has been found in training men for this service. The first operator was a man who has been at the front end as motorman for 32 years, or a horse-car driver, no doubt, beyond that. The second

oldest man gave up the safety car temporarily, saying it was a bit too fast for him; but he soon asked to be restored. Safety-car runs are now coveted by the men. Platform wages in Terre Haute are 39 to 42 cents an hour, with 5 cents an hour additional for safety-car operators. Of course, other railways are paying higher wages than these, but we must not forget that the gross earnings per car-mile in Terre Haute are also very low.

In addition to the reduction of platform expense and augmentation of revenue, these cars are also very economical in the use of power. A test recently conducted by students of Rose Polytechnic showed only 1.1 kilowatt hours per car-mile covering traction, light, heat, and energy for all the air-operated devices. This is easily one-half to one-third of the energy requirements of big cars throughout the United States, although the old cars of Terre Haute are not exceptionally heavy. With such low energy consumption and the advantage of a modern-size car, it is unnecessary to try such unsatisfactory expedients, unsatisfactory to the public, as the skip-stop.

I cry, "Peccavi;" I have sinned on that. I see that, too. Of course, the smaller car contains the skip-stop in itself. A car of that size, seating 32 or 35 passengers, will average, of course, a smaller number of stops naturally, so that you approach the ideal of taking the passenger on wherever he is and letting him off wherever he wants to get off. That is the ideal condition which can not be obtained in practice, certainly not with large cars.

Summarizing the costs, Mr. Walker finds the following covering the first six months of 1919:

Safety cars earned 20.62 cents per car-mile and cost 11.25 cents per car-mile, leaving 9.37 cents per car-mile available for taxes, fixed charges, rentals, dividends, etc.

Ordinary cars earned 21.95 cents per car-mile and cost 19.84 cents per car-mile, leaving 2.11 cents for taxes, fixed charges, rentals, dividends, etc.

The charges against safety-car operation include the wages of eight crossing flagmen. There are a number of grade crossings there.

The operating ratios, excluding taxes, of the two types of cars compare as follows—these are for the months of 1919:

	Safety cars.	Other cars.
	<i>Per cent.</i>	<i>Per cent.</i>
January.....	61.85	94.66
February.....	58.17	89.82
March.....	54.16	93.09
April.....	53.05	86.56
May.....	49.39	77.74
June.....	51.76	102.23

The safety-car ratios are reminiscent of the good old days; the other ratios spell bankruptcy.

It may be worth while to say in conclusion what the change in operation and equipment standards promises to do for Terre Haute based upon the costs of 1919 and 1918.

Now, I will say briefly that I took the mileage made by the old cars in 1918 and have found that at the costs then prevailing there

was available for taxes, fixed charges, rentals, and dividends \$88,395. Had the same cars been operated in 1919, to give this 100 per cent service, and had 10 per cent more mileage been given with those old cars to take care of the natural growth of the traffic, what remained for those items mentioned of taxes and so on would have been only \$41,837, because the operating expenses had increased from 17 cents per car-mile to 19.84 cents in one year, cutting more than half the amount available for these various fixed charges and taxes.

Had it been possible to give 100 per cent safety-car service in 1919 based upon the experience of these nine months and at 33½ per cent increase in mileage, not 10 per cent, there would have been available \$224,257, because the safety-car operation cost 11½ cents and not 19.84 cents. Instead of giving 1,982,780 car-miles with the old cars, the public would have received 2,393,360 car-miles with the new cars. Thus the old cars in 1910 would have left only \$41,837 for the several charges and the new cars \$224,257, leaving a difference of \$182,420 to be credited to the installation of the modern car.

Now, the question arises—

Commissioner GADSDEN. Are you including in those figures the interest on this additional investment?

Mr. JACKSON. I would not say that that is so—yes, fixed charges. Mr. Walker said that was the case. But I might say, in making up these figures it was necessary for Mr. Walker to estimate just what he should charge to the city division of Terre Haute. There are interurban cars there. And I assure you that Mr. Walker himself would be about twice as enthusiastic as I am.

Commissioner WEHLE. How about depreciation? That is rather an uncertain quantity with reference to a new car, is it not?

Mr. JACKSON. In my talk last week with Mr. Walker, that did not come up, but when I spoke to him a couple of months ago I said, "Mr. Walker, you want to assume that those cars are going to last only five years. Work them to death and throw them on the ash heap." He said, "That is one of the things I am arguing about with the people higher up." I do not know whether he is assuming a 10 or a 5-year life.

Commissioner WEHLE. Those figures which you just read showing a margin or difference between the ordinary car and this new type of car were based upon a certain assumption with reference to depreciation of new cars?

Mr. JACKSON. Oh, yes; that is correct.

Commissioner WEHLE. We do not know what that assumption is.

Mr. JACKSON. I am not certain whether it is 5 years or 10 years, but it really does not matter very much, because here is a car that is going to pay for itself in, say, about a year and a half, and the theory that I hold about the car to-day is that, in view of the appetite for something better and novel in transportation that the automobile has brought, the street-car ought deliberately to be made like a tin can; run to death, get 60,000 or 70,000 miles out of it per annum instead of 40,000, if that is what you get out of a good car. In my analysis of what railways are really getting, I find some of them get as low as 15,000 miles per annum out of a car, which means they are making three cars do the work which ought to be done by one.

Now, the obvious question which must come to anybody is, if these things are true, could not they be seen by analysis? If a car weighs 14,000 pounds, obviously it takes much less energy than if it weighs 35,000 pounds. If it has one man does it not cost less than two? One may well ask why the safety car or automatized-car-operation in general has not been adopted more quickly. I would like to add that when I speak of the safety car, I do not always mean new cars. A new car is generally the most desirable thing to have, but there are a great many existing cars which can be changed over for amounts ranging from \$400 to \$750—automatized, as I would say. Those who have been tardy have offered three reasons: The objection of the public; the objection of the platform worker; and the difficulty of getting new money. These may be dealt with in order.

The objection of the public almost invariably has arisen in those cases where the railway made no noticeable improvement in the equipment of the car or in the headway between cars. On the contrary, such half-hearted and mistaken attempts at one-man-car operation were often accompanied by an increase in fare. The scores of safety or automatic-car installations now in service surely prove beyond further argument that the public welcomes modern one-man-car-operation when it is accompanied by better service. I have said there is only one index. We can argue and talk about it, but there is only one index; that is the increase in riding. I have traveled from Florida to the State of Washington and back three times to study these things on the ground, and I assure you that what I say is not merely what railway men told me, but what I got from contact with the public—the riders.

So, too, the platform man has objected very properly to that kind of one-man-car operation which simply doubled his labor, causing him to run at a lower rate of speed and yet increasing the hazard of accidents. Sometimes the platform men have objected to actual automatic cars on the ground that they would lose their jobs. It is obvious, so far as this objection is concerned, that electric railways are not run primarily to keep the maximum number of men in employment any more than a shoe factory would refrain from using automatic machinery for the same reason. As a matter of fact, this fear of losing jobs is not justified by practical results. Continued two-men-car operation would deprive all men of their jobs eventually on most of our railways. On the other hand, one-man-car operation not only permits the continued existence of the electric railway, but also permits the operation of poor service with more cars.

You have seen that Terre Haute gives at least 33½ per cent more service and other companies are giving 50 per cent more. The ordinary situation is that the turnover on an electric railway is so fast that it outstrips the production of the safety car, with the net result of stopping both hiring and firing. At the same time, the men that are employed on these cars can be paid a higher wage, while future employees can be engaged with an eye to their ability as salesmen rather than to their ability to stop a 30,000-pound car by brute strength.

In other words, in the past the platform man at the front end particularly has had to be a man of physique—that was the first consideration. When you hire a cashier in a restaurant you do not

look for physique, or when you hire a salesman you do not look for physique. The automatizing of the car makes it possible to broaden the scope of employment. The conditions of automatic-car operation are so much more agreeable than the old-style car that in the future we may expect a much slower rate of turnover than in the past. The car platform will then be no longer the last resource of the man looking for a job.

The objection of the railway that it has no money for either rehabilitated or new automatized cars is frequently a valid one, but it does not offer an insuperable obstacle. The losses due to competition would have bought a great many new cars, if the persistence of such competition had been realized in time and met by increased service. However, in most cases it is not essential to have new cars, although the latter are more economical to run and better traffic magnets. For \$400 or \$500 up to \$750 it is possible to automatize any car, the lower figures applying to a single-end car already equipped with air brakes. With such equipment a saving of \$8 a day can be secured, if we assume a 16-hour day and 50 cents an hour pay for the superseded second man of each shift. At least 75 per cent of the existing cars ought to be converted to one-man laborless-car operation in this manner.

If the railway can raise the money for new cars, it will not only make a great saving in labor expense but also secure a great reduction in power cost. The reason is that it will have to propel only 400 pounds instead of 800 to 1,200 pounds of dead weight per seated passenger. So striking have been the savings of these light-weight one-man cars that arrangements have been made to sell them on the car-equipment trust plan; but as I have already indicated in the case of Terre Haute, one more demonstration is sufficient to insure the raising of money for more cars at home. Indeed, there is practically no risk in loaning money for safety-car installation, because the equipment is standard and can be used elsewhere should the first buyer fail to make good. The great adaptability of the safety car has been brought out recently in a most effective way through a moving picture, which shows the car in actual service under a great variety of conditions of traffic.

I helped to take that picture, and it was very, very little staged. All the traffic scenes are genuine scenes—the people did not know they were being pictured. That movie will be on view at the convention next week. I wish you could all see it.

Hitherto we have considered only the reduction in operating cost afforded by one-man car operation of the right kind. It is in order now to show why it also increases the gross earnings.

In the old days when the street railway was a monopoly, there was little belief in such a creature as riding habit. It is true that much effort was made to secure park and other pleasure riding, but few managers tried to attract the more substantial 300-days-a-year riding, through such devices as commutation tickets, special-hour shopping tickets, cut-rate tickets for any hours, etc. The flat fare also stood in the way of building up short-haul traffic through the provision of zone fares.

Nothing could illustrate the old viewpoint better than the vogue of the big car. Operators saw that the larger the car, the less was

the ratio of platform cost. They did not see that the lengthening of headway, which followed the use of bigger cars, retarded and discouraged the growth of the most desirable traffic—the off-peak business. Many operators seemed to see nothing but the rush hour, overlooking the fact that a car moderately filled in each direction is far more profitable than a car overloaded in one direction and empty in the other. This rush-hour viewpoint accounted also for the large proportion of longitudinal seats which do facilitate ingress and egress and do permit a large load of standers, but which are the last thing to use to attract voluntary riding. The desire of each railway—whether big-town or small-town—to use the largest cars its clearances permitted was the prime cause of the lack of car standardization that added hundreds of dollars and months of delay to the cost of every car.

With the coming of the private auto and the jitney in large numbers electric railways began to realize that the big-car, long-headway system had failed to secure anything like saturation of traffic. Thus came the 32-35-seat, short-headway, one-man car in place of the 50-seat two-man car. These cars did more than drive out the jitney; they created, as well as recaptured, traffic. Their work was a hint that no one can foresee just how much the riding public will do until a trial is made. In many cities the increase in patronage has run neck-and-neck with the increase in service offered.

Increased service with any kind of car would bring more travel, but there is no doubt that the public patronizes the service with new cars still better. This is natural, in view of the taste for novelty introduced by the auto. People who compare a 20-year to 30-year street-car with a 2 or 3-year-old auto are not likely to use the street-car quite so readily as in the old days. Changes in competing forms of transportation are so fast and furious that the electric-railway cars will have to be built upon the same basis of intensive use for a few years and then the scrap heap, in favor of the latest design available. If cars are built of extremely light materials, as in automobile practice, and used not more than five years, the railway will get its money back quickly enough to be able to present the riding public with attractive novelties instead of tinkering and retinkering power-wasting and track-ruining cars.

Gentlemen, you will hardly believe how much money has been put into some of the cars that you see on the streets to-day. They may have cost \$2,500 apiece, and at least \$2,500 more has been put into them at one time or another.

This does not preclude standardization, for each new type of automatic car will simply have a new set of improvements from year to year, as is the case with automobiles.

The zone fare as a second way of increasing patronage and revenue.

We have seen that frequent service with one-man light-weight cars is by all odds the surest road to decreased costs and increased revenue. There is, however, a second way of more limited application, and that is the sale of transportation according to quantity—in other words, the zone system.

While a pioneer in advocating the modern one-man car, I also held the opinion that the increasing flat fare was a poor way of

securing more revenue, since it would tend to drive away the short, profitable rider and discourage off-peak traffic generally. So long as the 5-cent fare met the desires of the electric-railway operator of America, little thought was given to the distinction between long and short riders, compulsory riders or voluntary riders and the proportions of each. The same people who received more than their money's worth were also expected to pay for less than their money's worth. They didn't, of course. With the coming of increased flat fares the distinction between the two kinds of riders, or rather the discrimination against the short rider, became aggravated. The losses in traffic showed that even under the 5-cent flat fare there were 10 to 20 per cent of highly profitable riders who did not have to use the street railway. That it might be worth while to retain the 5-cent rate for these riders occurred to a few operators who installed the central-area system for lack of acquaintance with true zone systems. The central-area system retained the 5-cent riders of the central business district, but did not recapture the short riders in other districts.

Nor, of course, did it make allowance for those cities in which there are a number of neighborhood centers. Pittsburgh is an example of that. More people are carried in the district outside of the 5-cent zone than in it, I believe.

Realizing that the need for more data on zone systems would soon arise, I made a detailed study of fare-collection practices on the ground in Great Britain and Ireland under the auspices of the Electric Railway Journal. Later I supplemented these studies by analyses of zone-fare operation in Australia and New Zealand where the conditions of living are equal to, or better, than those in the United States.

The first thing that I gathered from these studies was that the true zone fare inevitably brings out a large proportion of people who ride one mile or less; and this has been found to apply under a great variety of topographical density and other conditions ranging from the tenement-house condition of Glasgow through the small-house cities of England to the more scattered construction of the newer cities of Australia. This indicates clearly that the minimum fare must be one that will attract the walker. In Great Britain this minimum fare is usually one penny; in Australia with conditions closer to our own, it is more likely to be $1\frac{1}{2}$ pence or 3 cents for an initial zone up to $1\frac{1}{2}$ miles or so.

If any American city of reasonably compact population can show only 10 to 20 per cent of its riders within a 1-mile ride, it is obvious that it would do something with a lower fare for the shorter distance. It would be unwise to specify any particular scale of fares for universal application. In many towns, there might be but few situations where the additional revenue from a differential-fare system would make the extra cost and complication worth while. I would always wish first to exhaust the technical resources of the art. Ideal places for the zone fare beginning with a rate to attract present walkers are such cities as Boston, Providence, New York, Philadelphia, thereby making the street railway of maximum value to the public.

I just mention those to be specific. Cities that are not of that type are San Diego and East St. Louis.

The second thing gathered from studies of the zone fare was that there is little or no connection between the zone fare and congestion. Zone fares are found in almost every kind of community. The character of housing often appears to be a national characteristic, as the tenements of French cities and the individual homes of English ones. Furthermore, the expansion of American cities has been promoted largely by the ease of securing land, there being no century-old estates to interfere. Where a city has had a zone fare from the beginning, it must be obvious that the higher fare on the outskirts is offset in some measure by the lower cost of land. In the United States, contrariwise, the realty man has fattened upon the expansion of the electric railways far beyond the true needs of the community. The municipality itself, as Dr. Whitten has pointed out, has also been paying a bonus to the realty operator in over-rapid extensions of its streets, water system, and other utilities. In any event, it is noticeable that, under a correct zone system, the fare is not absolutely cumulative, so that the further a man lives away from the center, the less his fare per mile. For example, Australian roads make a concession to the suburbanite just as the companies and the municipal tramways of London do.

Commissioner WEHLE. How is that done? In what form is that brought about?

Mr. JACKSON. In Australian cities they follow this general practice: There will be three fares. In Sydney, I believe there are five sections. The maximum fare is the fare for three sections. A man who rides four sections or five sections does not pay any more.

In London, the maximum fare of the London County Council Tramways is 4 pence—8 cents. That applies whether you are riding eight sections or two sections to a zone—two laps, or any distance beyond that.

The reason is this: That the total number of people riding that maximum distance is too small to bother with the printing of a special ticket.

I will come to that in discussing the Public Service System in this country.

Commissioner WEHLE. The cities in Australia where the zone system is in force are how many?

Mr. JACKSON. Practically all of them. The cities that I have specified here are Sydney, Melbourne, Brisbane, and Adelaide. All have the zone system. Of course, a very small city, naturally would not have a zone system, because if you have not got lines of at least two miles long there is no use subdividing them.

Commissioner WEHLE. How large a city is Adelaide?

Mr. JACKSON. I have these populations right here. It is 145,000; Brisbane, 170,000; Melbourne, 708,000; and Sydney, 750,000.

Commissioner WEHLE. Did you observe those cities yourself?

Mr. JACKSON. No. My analysis of Australia is made from official reports.

Commissioner WEHLE. Then, when you say that the zone fare has no relation to congestion, you do not base that on your observation of the cities?

Mr. JACKSON. Not in the case of Australia, because Australian cities, if you have examined photographs of those cities, and seen them in the movies, you will observe that they are built pretty scattered, like any new American city.

The British custom is to live in single-family houses. That is true even in the poor sections of London, like Westham. They do not like to live in tenements. It is true that in the last few years there has been excessive crowding, but it is a curious fact that when I was in Dublin and talking to the city treasurer about housing, he sprang this article on me: "Housing employees, an important factor in labor maintenance," from "Industrial Management for December, 1917," and the author speaks about places in this country like Youngstown, Bridgeport, lots of cities through New England and the East, and even in California, where the people are terribly overcrowded; and if you have been in New Bedford and places of that sort, you know that there is no lack of space. It is due to greed by the landlords, or some other condition which they take advantage of. I was in Youngstown a few days ago, and they said, "Yes; this is one of the towns where the people sleep in beds in relays—8 hours to a shift."

Commissioner WEHLE. Those are all munition centers that you have mentioned, mostly, are they not—Youngstown and Bridgeport, and what other towns were there that you mentioned?

Mr. JACKSON. He mentions California, Texas, Pittsburgh, Boston, Fall River, Bridgeport. I do not know that Fall River was a munition center, but we can grant, of course, that the munition condition aggravated conditions.

Commissioner WEHLE. It was. Then we can hardly use those places as illustrative of the idea that zone fares have no relation to congestion, and that we are just as apt to have congestion without zone fares?

Mr. JACKSON. Yes.

Commissioner WEHLE. Those are not normal instances?

Mr. JACKSON. For instance, if you are traveling through Great Britain you will notice this condition: You will find Edinburgh and Glasgow are cities of tenement houses. That is ascribed partly to the French influence, because the French and the Scotch were very intimate before the union with England, and it is ascribed in the case of Edinburgh to a topographical condition, a condition of defense. The houses were built around the fort, the citadel on the hill.

You go to Aberdeen, and you will find the typical house is a one-family house. The so-called tenement in Aberdeen is a gray granite house, six families, three floors, two families to a floor.

Go through England and in English cities, as a rule, you will find one-family houses. It is true they are solidly built up. The best parallel I can give you is to look at Philadelphia, Baltimore, Trenton, and Richmond, and you will have a picture of a British city as regards housing—not big houses but compact development.

Commissioner WEHLE. Those cities were likely built before the tramways came into existence on any large scale, were they not?

Mr. JACKSON. I was astonished, Mr. Commissioner, to see the rapid growth of some of these cities in the last 50 years. Yes; some before the tramways, but the growth of a great many cities has been rapid with the coming of the manufacturing era, from about the year

1825 or 1830. Glasgow has grown tremendously, and Sheffield and Leeds; they were all comparatively small places.

Commissioner WEHLE. And Manchester?

Mr. JACKSON. And Manchester.

I would say this—what I was going to come to is a readjustment period is the thing that causes difficulties.

There is no doubt that the change from a flat fare in this country to a zone fare is going to upset and disturb realty values; but the question is, are the electric railways to go on the rocks because the man out here has property that is worth double on account of the 5-cent fare?

Commissioner WEHLE. We are not concerned, are we, with realty values so much in this country, or even with the effect on the railway, as we are with the happiness of the people that live in the cities and their healthful conditions of life? But the community, presumably, can pay whatever is necessary to get that, and if it has to pay more for the street railways in order to have them operate under conditions that are more conducive to healthful city life, presumably it will do it—the community will do it when it learns what the real bearing of the facts indicate.

I just suggest to you—it is only my personal view—that we could well approach this question from the point of view of the health of the community and its welfare, when we are discussing the effect of a zone system upon the life of the people. It is not from the point of view of the realty values. It is from the point of view of health.

Mr. JACKSON. That aspect has been treated very ably by Dr. Whitten in his testimony in the public-service case. Dr. Whitten is the city-planning expert, and his remarks upon the influence of zone fares were predicated exactly on the items you have mentioned—the general welfare and healthfulness of the community.

Dr. Whitten pointed out that there had been an overexpansion, a spotted—I think he termed it—a spotted development in too many American cities. As an example, I may mention East St. Louis, which I have visited a number of times. You go to East St. Louis and you come upon a clump of houses—a dozen houses, and then the trolley line runs three-quarters of a mile to a mile of absolute prairie and then there is another clump of houses, and then more prairie, and in the meantime the track is going out there and has to be paid for, and the people at the end of that 6 or 7 miles expect to keep on getting a 5-cent fare.

Commissioner WEHLE. So you use the zone fare in that case as a tool for the purpose of condensing the population and bringing about a uniform development?

Mr. JACKSON. A more uniform development.

Commissioner WEHLE. By the same token that can do that and produce such a magic result as that with a zone fare, does it not necessarily follow that, by applying the zone fare in a city that is already uniformly developed, you are going to bring another compensation into the life of that community and augment the tenement evils?

Mr. JACKSON. In the recent discussions in England on fares a point was made somewhat along those lines. Some of the managers actually argued that the very low minimum rate of Glasgow, for

instance, tended to keep the people down in the center. I will say that is ridiculous, after having been there. I was surprised that a British manager should have made that statement. Mr. Dalrymple, manager of the Glasgow tramways, contradicted him. As a matter of fact, in Glasgow the house that is built at the extreme end of the town is exactly the same kind of a house that is in the center of the town. And the city of Glasgow is building a number of tenements, or apartments, as they call them, which may be rented out to people who are earning a certain minimum. The ordinary artisan can not get into those houses. Yet those houses are out at Kennyhill, among other places, which is away out—4 miles or so—and for them the difference is made up in the rent. The rent is less; one thing offsets the other. The realty man in the United States has been a parasite on the electric railway and he has been a parasite so long that he regards that as a God-given right or privilege. Mr. Stanley, in Cleveland, has inaugurated the policy with regard to extensions that is along the right lines. He makes the realty people pay for it.

Commissioner WEHLE. Take your case of the tenement house or your apartment house that the city of Glasgow is building out on the outskirts of the town, where the children can presumably get better and healthier living conditions and less noise, and where the general surroundings for family life are probably more healthful; and it is the fact that the ordinary Glasgow type of multiple-family house is used in building out there at all a conclusive argument against the proposition that you get a better kind of life if you allow people to move out a long distance from the center—

Mr. JACKSON. No; my contention is there that it is a habit. They brought some British munition workers to Glasgow, and these people would not live in those houses under any circumstances, and they had to build single individual cottages for them on the Clyde, because they were Englishmen, and an Englishman's house is his castle. That is a matter of habit. Why is it in the city of New York the apartment house has followed the subway? When I was a kid in Brooklyn we did not have any apartment houses. It was hard to get over to Brooklyn. You had to take a horse-car ride across Manhattan, and a ferry, and you paid 3 cents on the ferry and might have to take two more horse-car lines to get to your destination in Brooklyn, and we had no tenements in Brooklyn. Wherever the rapid-transit lines go in the Bronx or Brooklyn the great big apartment houses go with them, and the answer is that the people in New York are used to living in apartment houses, and when they leave Manhattan they do not want to go to a cottage and build a fire and do a lot of other things that they have lost the faculty or desire for doing. They simply want to get into an apartment house that has still less work for them to do, so that the Manhattanese has the apartment-house habit, just as the Philadelphian has the house habit.

Commissioner WEHLE. Is not perhaps one of the reasons the apartment house follows the traction lines this, that just as fast as the traction lines goes out to your suburban community real-estate values go away up at once?

Mr. JACKSON. That is true in the case of—

Commissioner WEHLE. And the little fellow can not afford to build a six-room house out on land that has received such a tremendous accretion in value, and the only man that can build on that lot is some fellow who has enough capital to build an apartment house, and he breaks that up into apartments and rents it out, and this poor fellow who may be seeking peace but can not find it because he can not find land cheap enough to live on can not afford it.

Mr. JACKSON. Well, the average New Yorker does not want to live in anything but an apartment house. I know that personally.

But, to go on, I found that this was the case, that national characteristics, and in a smaller measure local characteristics, have a great deal to do with housing. Now, on the Continent you will find the smallest village in Switzerland or France consists of three or four-story buildings all huddled together and any amount of land around them. It is a survival of feudal times. It is a desire to economize on fuel and building material and so on, and that is a habit carried down from generation to generation.

For example, Berlin, so far as the street railways are concerned, is a unit-fare town; 10 pfennigs was the fare, except on some of the suburban lines, where it was 15. Hamburg was a unit-fare town; nothing but great big solid houses as far out as you could go, five or six-story houses, and the only place you would see individual houses was known as millionaires' row, for good reasons. On the other hand, on down to Cologne, a much smaller city, it also has the same kind of houses. Go to a place—

Commissioner MEEKER. Take Leipsic. Leipsic is the second largest city in Germany. That has the zone system, and there you have simply a collection of village communities widely scattered.

Mr. JACKSON. That is southern Germany.

Commissioner MEEKER. Yes.

Mr. JACKSON. So it goes.

Commissioner MEEKER. As a matter of fact, have you found such congestion in the zone-fare towns in Europe as you find in our flat-fare towns in America?

Mr. JACKSON. Well, you could not find anything worse than the Cherry Hill section of New York.

Commissioner MEEKER. Have you been in any of our mining towns in the West, the copper-mining towns?

Mr. JACKSON. No; I have not. I have been in Butte and cities of that size—Butte and Deer Lodge, but of course Deer Lodge is not a congested place.

Commissioner MEEKER. The reason I mention it is that for the reason that you point out in some of those communities the congestion of population is simply appalling and has nothing whatever to do with street railways, flat fares, or zone fares.

The CHAIRMAN. Have you completed your formal statement, Mr. Jackson?

Mr. JACKSON. No; I have not.

The only serious thing we have to consider is that in changing from a flat to a zone system we necessarily disturb the realty values of a generation. Hence it is wise to make the changes in fare as reasonable as the conditions permit, but it would not be wise to

refrain from increasing fares, because such increase would deprive realty owners of unearned increments, unless the community itself is prepared to make up the electric-railway deficits.

The third thing gathered from studying the zone fare in practice was the uselessness of comparing track mileage to population for the purpose of comparing the zone fare versus the universal fare. The older European cities show a comparatively small amount of tracks to population, whether they have flat fares or zone fares. The new American cities and new Australian cities show liberal trackage, although the Americans have flat fares and the Australians have zone fares. All in all, it is true that European cities have too little track, whereas American cities certainly have too much, because formerly competitive railways still have their tracks in place, although they have long been consolidated. A reduction in track mileage would be a healthful blood-letting for many American cities. I may add that, while British cities have so little track in proportion to population, it does not appear that their operators feel the need for much more. The tendency is to serve the suburbs first with buses or trackless trolleys and to refrain from putting down costly track until the population is dense enough to pay for, say, a 10-minute headway. This is common sense. In other words, instead of having that development out in East St. Louis with its very costly track construction, running out for miles and miles, because there was too much optimism or too much pressure from realty developers, you would put down, as the Englishman does, two or three buses and say we will give a bus service every 30 minutes and if the population out here grows we will put on some more buses, and bye and bye we will put on a trackless trolley or perhaps put down a track when we know it is there. We are not going to take a chance on building something that is going to be a dead dog on our hands afterwards.

The fourth thing to be gathered from a close study of British practice is that the success of the zone fare depends as much upon close headways as upon a short fare for a short ride. It is obvious that people will not wait 10 to 15 minutes in order to ride one-fourth of a mile to a mile. In Glasgow, where the minimum-fare zone is 1.16 miles, fully 62 per cent of the passengers rode within that distance last year, and it is a long city, along a river valley; and it must be clear that they would not have done so much short riding if the car service had been infrequent. It does not follow, of course, that the cars themselves are as good as our own in comfort and upholstery. Generally, they are not, although the provision of cross-seats on the upper decks and permission to smoke there are much appreciated. Jitney experience in this country indicates that people tend to take the first vehicle that offers, a shabby auto being often preferred to a finely upholstered car, because the jitney is there and the car is not.

The fifth thing to be gathered from a study of zone-fare systems was that they are not to be judged in connection with the wages paid to the carmen unless we were to use the same scale of fares. As a matter of fact, the British carman to-day is earning prewar American wages, has an 8-hour day, and gets certain privileges—like payment for reporting time, uniforms free and vacations—that make the platform cost just as dominant as here. On this new

basis most fares are still 1 penny or 2 cents minimum. On the other hand, the zone fare in Australia has been applied for years on railways which were paying American wages. No matter what the wages are, a zone system can be worked out on the plan of maximum revenue from maximum riders, as against the plan of 8, 9, and 10-cent fares for all who can be compelled to pay them.

I may remark that in Pittsburgh, a couple of days ago, I saw a statement by one of the receivers of the Pittsburgh railways to the effect that he thought the fare would have to go over 10 cents. Mr. Tome made that statement. Mr. Fagan, a coreceiver, differed. He was satisfied that they had gone far enough now.

Mr. WARREN. What is it now? 10 cents?

Mr. JACKSON. It is $7\frac{1}{2}$ and 10 cents; 10 cents for the cash rider and $7\frac{1}{2}$ cents for the man who buys tickets—two for 15 cents, I think it is.

Until the Public Service Railway of New Jersey installed its zone system, beginning September 14, 1919, the United States did not have a single example of an electric railway in which an effort is made to get the same high proportion of less-than-a-mile riders found wherever the zone system has been in use for a number of years. I may say, in Milwaukee there has been a correct zone system, but it is a 5-cent basis.

A discussion of the Public Service case may serve to illustrate the traffic-building possibilities of the zone fare as applied to America.

Early in March, 1919, the Public Service Railway, at the request of the New Jersey Board of Public Utility Commissioners, presented a proposal for a zone system of fares in which 5 cents was established as the fare for the first mile and 1 cent for every mile thereafter. Transfers of the usual time-limit type were to be charged for at the rate of 2 cents for the first mile on the connecting line and 1 cent thereafter.

At the hearings conducted on this proposal before the board the representatives of the League of Municipalities laid stress on two things: That a zone-fare scheme ought to be one that would recover the enormous losses of traffic to the jitney and motor bus and that would include a fare low enough to transform walkers to riders. In short, as much as possible of the additional revenue ought to come out of increased patronage instead of being drawn wholly out of the passengers compelled to use the service. Accordingly, the writer suggested a fare of 3 cents for the first mile and 2 cents for each increment of a mile or more thereafter. To shade the fare for the long rider, he suggested, in place of a strictly cumulative fare, one in which the first additional zone would be, say, 1 mile, the second, say, $1\frac{1}{2}$, the third $1\frac{1}{4}$, and so on. This would not always be practicable because of the encroachments upon a series of zones emanating from a neighboring city but indicates the general principle of showing some consideration to the long rider, whose fare is so severely increased at best, as the London bus suburban practice.

Furthermore, the writer believes that electric railways of street-railway character ought not to encourage extra long-haul traffic when the faster service of a steam railroad or electric interurban is available. This is peculiarly the case on the Public Service Railway, which had been giving some extraordinarily long rides for 5

and 10 cents, so that the change from a flat to a zone system of any kind meant a great increase in fare for people who had no regard for the value of their time. I believe that it is far better for an electric railway to lose the small percentage of such long-distance riders than to lose or fail to attract the enormously greater number of short-distance riders for whom the electric street railway was created.

You know in the case of the Public Service you have a railway made up of a great many subsidiary companies, and just because the tracks abut one another all the way across the State, it has become the habit of the people there, encouraged by the through routing methods of the company, to take the fullest possible advantage of long rides. People would ride all the way across Jersey City and all the way across Newark for 10 cents and get an extraordinary ride and be on the cars two hours, when, if they had gotten on the train in New York and paid 5 or 10 cents more, they would have gotten there in about one-third the time. Now, that is a ridiculous condition.

I might say that the tables of the company show that the proportion of that class of passengers is really very small in comparison to the short rides; that taking the riders beyond 7 miles, probably not more than 10 per cent of the traffic comes from that class of riders, and that it would not be a bad scheme where you can shade the fare for the long-distance rider and where you can not get rid of him altogether to borrow the scheme of London and have a certain maximum fare. But the Public Service system suffers under the disadvantage of trying to make an electric railway do the work of both the street railway and an interurban, an impossible combination.

The decision handed down by the board of public-utility commissioners covering a 3-cent fare for the first mile and 2 cents a mile thereafter followed a statement by President McCarter, of the Public Service Railway, in which he declared that a flat fare of 9 cents was one of the alternatives, but that he could not favor such a fare because it would still further impair the usefulness of the street railway to the public. In particular, in a statement before the board made July 29, 1919, he discussed the plan finally accepted as follows:

Now, as we have gone on with this matter, we have been impressed by the testimony that has been adduced here with regard to the possibility of a low minimum rate. I frankly pay a debt of gratitude to Mr. Sommer [counsel for the League of Municipalities] for the testimony that was adduced, through his efforts, of the working of the zone fare in other jurisdictions. It is, of course, a very radical move. But we are so disturbed about the whole future of this electric-railway situation, and we are so anxious to put into effect a rate that will reasonably satisfy the public and, at the same time, produce a revenue at least sufficient for our minimum needs, and we are so desirous of having the public realize and believe that we want to meet their reasonable wishes that I may say, contrary to the experience of this industry for a generation in this country, contrary to the views that I myself have always entertained heretofore, we are willing to try, with the concurrence of this commission, to put into effect, if the commission please, a third rate, and that is a rate which shall be 3 cents for the minimum charge and ride of one zone mile and 2 cents a mile thereafter, without transfers.

Now, that [rate of 3 cents for the first mile and 2 cents a mile thereafter] will produce, we think, the minimum amount of money upon which the company can live. We think it will go further toward alleviating public sentiment, toward making the public feel that we are endeavoring to go as far as the

nature of our business will admit in providing a reasonable rate. It will be better than any other rate that is at all practicable, reduce and minimize the jitney situation, and all things considered, if it will produce the revenue which we think it will and hope it will, though it departs from the accuracy of the stand-by and movement costs in its working out to the literal conclusion somewhat, in that it lowers the minimum below what it costs to carry a passenger for a short distance, we nevertheless feel that it is a rate we are ready to try and which we think will accomplish the ends that I have spoken of better than any other rate.

You are, of course, aware that the introduction of the zone system on the Public Service Railways has not been without its difficulties, but it must be borne in mind that the system of fare collection also has been radically altered at the same time and that neither the platform men nor the patrons could be expected to handle it smoothly within a few weeks. The Public Service zone system being operated on the pay-leave plan also loses one of the great advantages that a differential fare possesses on foreign systems, namely, in securing the selfish interest of the passenger in the transaction. On all other zone systems the passenger pays before he gets most of his ride. There are some of the little fare receipts from the London line [handing tickets].

Now, under the foreign system the passenger gets a receipt for his fare and it is to his personal interest to see that the receipt is correct. That London ticket is a combination of the plans used over there. Some companies use numbered zones and others use street names or other indications. In London they are going to numbers gradually and they were using both the numbers and the name during the change-over period.

The CHAIRMAN. May I ask one or two questions about these? I see this ticket is numbered, beginning on the right-hand corner "1," and running down to "8," and on the left-hand corner "9," running up to "16." What do these numbers represent?

Mr. JACKSON. Sections—two sections to a zone. Every section along the line has a definite number or name. If you are taking a 4-penny ride or, we will say, a 3-penny ride, the conductor will punch six sections ahead, there being two sections or two laps for every penny.

The CHAIRMAN. Do you pay as you enter?

Mr. JACKSON. No; not usually. The upper-deck passengers on some systems pay as you enter. That is simply an accommodation. When the women conductors came on they wanted to help them along. But the British car is not adapted for prepayment, for the reason that the stairway is on the back platform and leaves almost no room for a—well, it is impossible to have four or five passengers stand in line on a car of that kind. The differential fare in itself, of course, is also a bar to immediate payment.

The CHAIRMAN. When is this ticket released?

Mr. JACKSON. If you look on the back of that ticket you will find the passenger is requested to throw the ticket into a bag. That was a paper-saving campaign. You do not keep the tickets. You throw them away. It has been suggested that people ought to give up the tickets; that is, in this country; but I know that is impracticable, because it can not be done, even on an interurban railway, if there is not something to show what he has got. He gets a

pad. These tickets are serially numbered. He begins his day's work with a number of pads of tickets. They are really receipts, and for every receipt he gives out he must have an equivalent of money.

Commissioner MAHON. They do not use any register at all; they have a ticket?

Mr. JACKSON. No; they have a little punch which is a sort of check to that. The bell punch counts up the number of tickets used; it does not count the amount of money. For instance, a man might issue a number of penny tickets—25, and 2-penny, 50, and 3-penny tickets, but his punch would show the total number of tickets issued, but not the denominations. But when he starts out for the day's work he is given so many tickets, and an accounting of those tickets is shown on a waybill. We will say he started out with a ticket marked "ZZ," 500 to 550. Those are penny tickets. Another will have "XX," 600 to 650. Now, in the course of the day, he gives up these receipts. He has got to turn in his remaining tickets and the money, the equivalent to the receipts given out. In other words, he is giving out a series of vouchers.

Mr. WARREN. Does he have a different pad of tickets for each denomination?

Mr. JACKSON. Every denomination is a different color, all the way from 1 penny up to 4. Ordinarily—we will take the case of Glasgow—they go up to 4 pence. As 63 per cent of the tickets are penny tickets, those of the higher denominations are usually kept in a little closet back of the man. He is not liable to have them in his hand at all.

Commissioner MEEKER. Very frequently the conductor finds that a man who asks for a penny ticket really rides further than he should, and he comes around and collects an additional fare?

Mr. JACKSON. Yes. The zone system, or the fare-receipt system, of Great Britain practically makes it impossible for the conductor to get anything that he should not get, but it is necessary to see that the passenger does not get more than his money's worth. He can get it in two ways. In the first place, since prepayment is very rare, he may be on the car, he may have had a quarter of a mile ride before the conductor comes around. Of course, the fare is always up to the next zone point, wherever that may be. But it is conceivable that a man may get on just before a fare stage, for instance, and get quite a bit of a ride before he begins paying for it. But the thing you have to look at eventually is how much money gets to the treasury of the company. It is to be admitted that there is overriding which is checked only partially by the inspectors who board the cars at intervals. The—

Commissioner MEEKER. People even override in our own country.

Mr. JACKSON. Oh, yes.

Commissioner MEEKER. And fail to pay their fares.

Mr. JACKSON. Yes; there is no doubt of that. But I would say that the only way to judge those matters as to what you get by the zone system is how much gets into the treasury of the company. And you will find that under the zone system the number of fare collections per car-mile will run from 14 to 20 or more on what the conductor actually gives an accounting. We find in the case of Liver-

pool that the average earnings for the last fiscal year were 38 cents a car-mile with a minimum fare of a penny—2 cents.

Commissioner GADSDEN. Were you not proceeding to describe the Public Service System for us?

Mr. JACKSON. Yes. On all other zone systems the passenger pays before he gets most of his ride, and he has a selfish interest in seeing that he pays only for what he gets. The regular passenger, especially, can not be said to care greatly what the conductor does with his money if he pays upon leaving the car. In any event, no zone system can be as convenient as a one-fare system, but that it can handle extremely heavy traffic is evident from the fact that the average number of fare collections in British cities is 14 to 20 per mile, compared with less than half that number from here. In other words, we say, is this system practicable? Can the conductor really make the collections? The answer is he does. In this country if we have seven or eight passengers per car-mile we think we have very good business. Over that we consider it very good business.

To conclude as to the zone system: A zone-fare street railway, with a combination of good will, low-based fares, and short headways, will get the maximum revenue from a maximum number of patrons and leave little or nothing for the jitney.

You know that the zone system on the Public Service was put in under considerable difficulties. They did not have the practice, and instead of trying it out on a couple of lines here and there and getting the personnel absolutely familiar with it, they slapped it on all over at one time. That is contrary to ordinary human practice.

Can the one-man car and the zone system go together? It is natural to ask how one-man car operation and the zone fare can go together. Obviously, we can not expect one man to handle four or five different kinds of fares in addition to running the car. The way to avoid this will be through the operation of one-zone and two-zone cars with one man, reserving the larger cars for long through runs in multizone service. There is no good reason why the service as well as the fares should not be zoned in accordance with the density of traffic. In other words, the same route could be composed of through cars with two men each, going from one extreme terminal to another, while one-man cars should shuttle back and forth over 1, 2, or 3 mile sections of the same route.

To make myself clear with a concrete application: The Public Service Railway operates through a large number of cities of varying sizes—from Newark, of 350,000 or so, down to places of 15,000 or 20,000. It has a large number of through runs. The car starts in one of these cities and goes across country and gets into the other city and goes right through it, and there is not the adaptation of the service to local communities that there ought to be in order to get the short-haul rider with a short-ride fare. I have in mind a place like Rahway, N. J., where you will always find some motor buses waiting for you when you get off a train; but it will be just a matter of accident to find a car coming along at that time, because the car emanates from another town and runs through Rahway without any particular regard to the needs of the people in Rahway.

Therefore, in a situation of that kind your through car, which might be continued in operation for a certain class of passengers,

would be a zone-fare car; but there could be any number of small cars in these individual towns to give a local service, just as you give a local and express service.

I have in mind some of our large systems, where the present method of operation calls for long, through routes with large two-men cars at a sacrifice of local traffic opportunities in the towns through which these cars pass. Such local traffic can be developed only with small one-man cars operated within the two at frequent intervals.

For short-route towns it is not practicable to use a zone or a multiple-fare system. It is possible, however, to work out various forms of commutation tickets based upon giving a reduced rate to those who average more than two rides a day. In a practical working out such a ticket or pass is a fair deal to both the long rider and the short rider, since the short rider has more opportunities to ride, as in going home for lunch, where the long rider would lack the time. Such a ticket would be far more convenient to passenger and car operator, as it avoids all need for making change, issuing transfers, and arguing about the time limits and use of the latter.

I want to come back to the matter of bus operation. I might say first with regard to this matter of fares in a small town or many towns that the idea of cut-rate tickets for certain hours of the day, while it is an appealing one, is not so attractive, because it does add greatly to the work of the conductor and is a source of friction with the public, just as the transfer is. People come on a car at 10 minutes to 10 with a 10 o'clock ticket, a shopping ticket, and want to get on the car at that time, or they present it after 4 o'clock, perhaps. That has been the experience, where tickets of that kind have been tried. So that it is not desirable to do that.

At the same time it is also not desirable to follow the opposite policy of charging a prohibitive fare for the so-called casual rider.

Who is the casual rider? Very often women shoppers. And the business men of a community, as a rule, are likely to resent a rate of fare of that kind that keeps off the people that do business with them.

We have, therefore, tried to develop a ticket on railways in this country based on the thought that anybody that is already riding more than 2 times a day, 12 times a week, is entitled to get his excess or off-peak riding at a reduced rate—really an unlimited-ride ticket. It is based upon the practice of the London underground railways.

Commissioner WEHLE. Has that been done in London?

Mr. JACKSON. Yes. In London they have season—so-called season tickets—sold for a month's or three months' riding. They are unlimited-ride tickets. They differ from the tickets that we have worked out here, being for different rates of fares because of the length of the subway lines. The man who lives out at Hampstead pays one price, and if he lives two or three stations farther in he pays another price; but he can ride as much as he pleases on that ticket, simply showing it. Theoretically it is made out only for the holder. Practically, of course, anybody that has it uses it. Consequently in devising a ticket of this kind for this country I suggested that there be no limitation of that kind at all, because it was not practicable.

Commissioner WEHLE. I understood you to say something about off-peak riding. Did you mean that some arrangement had been made whereby the customer—or the rider—

Mr. JACKSON. Call them customers. I am beginning to look at them in that way.

Commissioner WEHLE. Could ride off-peak more cheaply than at other times?

Mr. JACKSON. Practically, in this sense: Where you sell tickets, say on the basis of six for a quarter, as was commonly the case, the people who bought those tickets were largely those who had fixed riding habit—the man who went to work in the morning and returned at night. That man was riding during the period when it was most expensive to serve him. He was not doing you a favor, and yet he was getting advantage of any reduced rate that was available. Now, suppose you say to that man that if he will be a good sport and ride just a little bit more, pay a little more every week, that he can get all the extra riding he wants for that increment. And it is obvious that he can take that extra riding only during the off-peak hours; because he already is a rush-hour customer.

In conclusion I just want to say something about bus operation.

It is time for the electric railways of the United States to take a hint from British practice and make more use of the motor bus in handling extensions and giving a de luxe service on good shopping and other show streets of a special rate of fare. The greater flexibility and all-around usefulness of the motor bus can not and should not be ignored by the street-railway operator just because it happened to be used by a pirate competitor first. Because of its experience in routing, scheduling, and other transportation technique, the electric railway is the logical operator of bus service. All popular-priced transportation should be under one head, as a matter of course.

I have been asked to offer an opinion as to the relative merits of British and American street railways. The most direct and shortest statement would be to say that America excels in mechanical and electrical equipment standards except in track maintenance and that the British excel in the selling of transportation. The latter, it seems to me, is logical because of the use of a system of fares which compels the growth of a more businesslike attitude than where you sell all classes of customers at one price. Perhaps the British car would strike an American as too plain; on the other hand, our companies have given altogether too much for the nickel, both in length of ride and expense of car upholstery.

I did not find any essential difference in the operating standards of British tramways because of private or public ownership. Most of the larger properties are publicly owned. They are certainly conducted in a most efficient manner, and rather than classing them as extravagant, I should say that the tendency is toward parsimony. The middle-class councilmen always want fares that will bring a large surplus for reduction of taxes, while the Labor Party councilmen strive for low fares regardless of profit. Neither the private nor public railways are in the precarious condition of the American electric railway, because they have had more success in raising fares without diminishing traffic, but the increases in operating costs and

materials have been even greater than here. So it is only a question of time before the British railways will have to hitch up their fares another notch despite the fact that they are not embarrassed by an adverse public sentiment, a multiplicity of subsidiary corporations, and the like.

The CHAIRMAN. You spoke of encouraging buses at a special rate of fare. Do you mean that the fare is higher or lower than the street-car fare?

Mr. JACKSON. Higher. I have just made an analysis for a large city in which I have demonstrated conclusively that the bus will lose money at 10 cents.

The CHAIRMAN. What city is that?

Mr. JACKSON. Detroit; and the statements that have been published by the Boughton Co. concerning Chicago motor-bus operation and its future and possibilities are grossly exaggerated on the basis of their own past history.

The CHAIRMAN. Are the busses in England operated in connection with the tramway companies?

Mr. JACKSON. Generally they are and have been.

Here is a peculiarity of English law: A private operator, a private person or company, can go into the bus business with no other preliminaries than securing police approval for the form of bus. It must comply with certain safety regulations and speed conditions and weight, and thereupon you can go into the bus business just as cheerfully as people go into the jitney business here.

On the other hand, if the municipally owned railway wants to go into the bus business, it has to apply to Parliament for a special privilege.

The British Electric Traction Co., which operates over 30 properties, has bus operation in connection with 16 or 17 of them, and the Leeds Municipal Tramways operate motor buses and trackless trolleys. Edinburgh, which has just acquired the system, has laid out half a dozen motor-bus routes, and Aberdeen is putting in motor-bus routes, and Glasgow is considering them.

The British idea for using buses is, so far as most of those properties are concerned, the development of the suburban traffic, to know where you stand. A comparable case is that of the Municipal Railway of San Francisco in developing bus service across Golden Gate Park and other places. The Stone & Webster interests in Washington run a number of bus lines and feeders to the interurbans. They do not make money on them. They did make a little money on one, but, generally speaking, you give a bus service because you lose less money on it than on the track, and you feel that you have to give it because you are a utility and there is a demand for it.

The buses in Leeds are run, say, on a 30-minute headway, and the trackless trolleys about 20; and when the service justifies 10 minutes, they will put down track, but not before.

The CHAIRMAN. Do they operate upon the same streets as the tramways?

Mr. JACKSON. Yes. Well, a good many of these lines operate over the tracks or alongside of the tracks for a certain distance, and then go out into the country.

The CHAIRMAN. How is their fare as compared with the electric line?

Mr. JACKSON. The British Electric Traction Co. follows this policy. It sets a prohibitive rate of fare on the short rider on the bus; that is, on the city end. Where you can get the tramway, it makes you pay perhaps 50 per cent more for the bus.

In London, where the bus and the tramway are in competition, the London General Omnibus Co. charges practically the same rate of fare, except that where fares are cumulative; that is, they do not stop at 12 pence, the way the London County Council does, because the buses go out into the country, and are very long lines; but where the bus has no competition it has been forced, even in the past, to charge about 30 per cent more on an average.

Commissioner MAHON. The bus in London, where it competes with the railroad, charges the same rate of fare, but when it gets away from the street railways it charges higher?

Mr. JACKSON. Yes; about 30 per cent, Mr. Commissioner. They compete up to 4 pence. The tramway does not charge any more than 4 pence, and I guess it is a good theory, because who on earth wants to ride on a street-car more than 8 sections, which means more than an 8-mile ride?

The CHAIRMAN. Can the bus entirely supplant the street railway in cities in this country?

Mr. JACKSON. Certainly not.

The CHAIRMAN. Why?

Mr. JACKSON. It is a matter of capacity as well as operating expense. The buses proposed in this country do not exceed 50 seats. A bus operation calls for no standers. In this country it is being developed along the lines of a de luxe line, with 10-cent fares, and the biggest excuse or the best reason they have got for asking the double fare is that there is a seat for every passenger.

The ratio of labor expense, platform expense, on a bus is far more unfavorable than on a street-car.

Take the comparison in London: The London County Council car seats 78 passengers and has two operators. The London bus now in use seats 34 passengers and has two operators. In one case you have got 39 passengers to each employee and in the other case you have got 17 passengers to each employee.

Commissioner WEHLE. What is your definition of a bus?

Mr. JACKSON. A bus is a vehicle on tires, primarily, whether run by gasoline or electricity—a carryall.

Commissioner WEHLE. How many does it carry, necessarily? I mean, is there necessarily a limit?

Mr. JACKSON. There is a limit; yes. The weight is a limit, because the laws in this country prohibit the construction of motor trucks and similar vehicles of more than a given weight. Furthermore, a gas engine is not suited primarily for frequent-stop service. Just as soon as you increase the size of the bus beyond, say 40 passengers, you begin to get as many stops as a street-car, and you thereupon get a very uncomfortable riding. Ask anybody who rides these Chicago buses what they think about that tank service—and those buses in Chicago have been in use only two or three years—and they are all clattering around in a most awful way.

Commissioner WEHLE. How have they paid?

Mr. JACKSON. What is that?

Commissioner WEHLE. How have they been as an investment proposition?

Mr. JACKSON. Why, in this circular issued by the Broughton Co. they said that the buses of London had been highly profitable. Maybe they have been. That is in the past tense—very much past. You might as well try to sell electric-railway stock to-day on what the electric railway did 10 years ago. The fact is that the London General Omnibus Co. for a number of years paid something like 5 or 6 per cent. These last two years it has not made enough money to pay a dividend out of the actual earnings of the bus company. They have paid dividends out of a general fund of the London Underground system, and the earnings for the last quarter, or probably the first quarter of 1919, show an actual deficit.

For the first time the London General Omnibus Co. has shown all its operating costs. There was published a few months ago the result of an official audit.

The reason those costs came out was that the company said that it had to have higher fares, and the Government said: "Well, show us." This audit shows very distinctly that they need them.

Commissioner WEHLE. How did their fares at that time compare with the fares that the street railways were receiving?

Mr. JACKSON. Where they were in competition the bus charge the same rate. Now, up to March of this year the London County Council and some of the other tramways there gave 1.8 miles for a penny. They have recently increased the fare, giving only 1½ miles for a penny, and the bus has sort of trailed along with that.

I was privileged in London to see all the inside data, and I observed that the distances given for a penny vary enormously.

Contrary to what an American operator would do, they give you more for your money where the traffic is thin, for the sound reason that if you are only running about one-quarter full and you can run three-quarters full, you can get more passengers by cutting your fare in half. That is what has been done in London.

Commissioner WEHLE. Was the fare on the buses raised at exactly the same time that the fare on the tramways was raised? You said something about the buses trailing along.

Mr. JACKSON. Yes.

Commissioner WEHLE. Then, as I understand you: First the tramways raised the rates, and then the buses thought they could not exist on what they had?

Mr. JACKSON. That was the cause for that audit.

Commissioner WEHLE. Their fare that they were then allowed to charge trailed along and equalized the fare of the tramways, and they made a showing, while they were applying for the higher rate to the effect that they could not get along on what they were getting?

Mr. JACKSON. Yes. In making this increase in fare on a zone system, like the London bus, they do not, of course, increase all the fares in the same ratio all over. They increase them here or there just as the traffic will bear.

Commissioner WEHLE. Just to get your conclusions a little bit more, without asking you to go so much into the narration of detail: Going back to the Chicago situation—have the buses of Chicago operated at a profit or not?

Mr. JACKSON. They laid aside \$18,000 for depreciation last year for 50 buses—\$18,000 and some hundred dollars. When we say "profit," we want to find out how much depreciation is allowed.

Commissioner MAHON. They charge the 10-cent fare, though?

Mr. JACKSON. They charge the 10-cent fare; and if they had laid aside the proper proportion of depreciation, as I understand the life of a bus, they probably would have shown next to no profits, if any. Because \$18,000 surely is not a sufficient depreciation for 50 buses.

Commissioner WEHLE. How is the Fifth Avenue bus service paying, if at all?

Mr. JACKSON. I do not know just what dividends they pay. I looked over their figures very recently. In the early years the Fifth Avenue Bus Co. made no money at all because of the rapid obsolescence and depreciation of the buses. In the last three or four years they have done fairly well. I would say that they have made no extravagant profits or anything like that.

Commissioner WEHLE. They have been making a profit, have they?

Mr. JACKSON. They have been making some money.

Commissioner WEHLE. What does the stock sell for?

Mr. JACKSON. I do not know.

Commissioner WEHLE. Is it above par?

Mr. JACKSON. I think the stock is held by the Interborough interests very largely. Is it not, Mr. Warren?

Mr. WARREN. Some of it. I do not understand the majority is.

Mr. JACKSON. It is a sort of associated company.

Mr. WARREN. I understood they held less than control. They charge a 10-cent fare, of course.

Mr. JACKSON. I might bring out this fact of interest: That the average number of passengers per bus mile, the average earnings of the Fifth Avenue Bus Co. for the last fiscal year up to June, 1918, showed only $3\frac{1}{2}$ passengers per bus-mile. That is 35 cents. Although, in other words, they charge 10 cents and have a wonderful highway to work on, they do not earn per bus-mile any more than a reasonable, decent car line.

Commissioner GADSDEN. It is a long-haul line. People do not get on and off in two or three blocks.

Mr. JACKSON. One point I brought out in my analysis of Detroit, Mr. Commissioner, was this: I said I could not see the alleged high profits for Detroit, because the Fifth Avenue bus line was getting only 35 cents per bus-mile, and yet in the case of the Fifth Avenue buses the long haul was diluted to some extent by the shopping travel on Fifth Avenue itself. I said that if all the riders, or most of the riders, on the Fifth Avenue buses were the people that go out to get the air and see all the millionaires' houses on Riverside Drive, the Fifth Avenue Co. would have been in bankruptcy long ago. It is just the short rides on Fifth Avenue that saves them. I made the point that if a street railway could not live at 5 cents, a bus company can not live at 10 cents.

The CHAIRMAN. From your study of the electric-railway industry, do you advocate establishing a zone fare in all of the cities of this country?

Mr. JACKSON. Oh, that would be out of the question.

The CHAIRMAN. Then, what is the determining factor?

Mr. JACKSON. A thoroughly compact development of the city. I should say the lines ought to be at least 2 miles or $2\frac{1}{2}$ miles long. There ought to be the possibility of getting at least two kinds of passengers. I have mentioned specific cities, to give you a picture of that. New York, for example, is a wonderful town for the zone fare on the surface cars. The city is committed to a universal fare for the rapid-transit lines, but the surface cars obviously can not compete with the rapid-transit lines on that basis; and they ought to sell their merchandise on a different plan, because they have got something different to offer.

The greatest mistake in Manhattan Island, as I see it to-day, is to try to shoot up the surface-car fares instead of dividing the town into sections. Anybody in New York City that wants to take a long ride will have the subway available. There is no excuse for a person riding 4 or 5 miles on a surface car in New York.

The CHAIRMAN. Is it your idea that the real competition between the surface and subway should be by having a lower fare on the surface line than there is on the subway?

Mr. JACKSON. A lower fare for short rides. In other words, the surface lines of Manhattan serve, or should serve, a distinctly different purpose from the rapid-transit lines.

The CHAIRMAN. I believe you advocated the zone system upon the New Jersey lines?

Mr. JACKSON. I did not have to advocate it. The company advocated it itself. But my contention in that case, as a witness for the League of Municipalities, was that no zone system hitherto constructed showed the peculiarities of the Public Service system—that is, the ratios. The minimum fare was 5 cents and the next fare was 20 per cent higher, and so on.

Without entering too extensively into theory, I showed that wherever a zone system had been applied in other countries the ratios were 1, 2, 3, 4, or 1, $1\frac{1}{2}$, 2, etc.

I was very much interested to observe that Mr. Magden, director of the British Electric Traction Co., has recently prepared a paper in which he attempts to allocate standing and running charges for a zone system, just as was attempted in the Public Service case; and the ratios which he reaches are ratios that have been distinctive of the zone-fare systems hitherto, before any theorizing of the matter was done. It was just a feeling that the initial fare in most places ought to be $1\frac{1}{2}$ pence rather than 1, and the next fare should be 2 or $2\frac{1}{2}$ pence. In other words, the first fare was not five times or four times or three times the increment of the successive fares, but was only $1\frac{1}{2}$ times the increment.

The CHAIRMAN. They had a good deal of trouble down in New Jersey when they installed this system, did they not?

Mr. JACKSON. I do not think they raised a fuss because they had to pay 5 cents for the first mile and 3 cents for the second. I think those are largely matters of good will.

The CHAIRMAN. What is the situation down there now?

Mr. JACKSON. I understand in the Camden district the service on some lines has been suspended. I have been out of the city for the last two and a half weeks and have not seen any consecutive

account, except that I understood that the people in the Camden district who caused most of the trouble were extremely long riders, which would be accounted for by the fact that they are now being served by the steam railroads, and that is the service that they ought always to have had.

The CHAIRMAN. Has the service been suspended because the people would not permit the company to operate or because it is not getting money enough to operate?

Mr. JACKSON. I think they suspended the service because of the assault and battery on the motormen and conductors and the smashing of property.

Commissioner MAHON. Do you know there is a bus system opening up in Detroit this week?

Mr. JACKSON. It is not the system I have in mind, because they are trying to raise money. The Detroit Motor Bus Co. is the one that has been trying to get the money, but I have seen the circular of some other company.

Commissioner MAHON. I have been away from home, but they told me when I got home. They had one on the street on exhibition, a double-decker similar to the London buses, and next week they expected to open with some 40 or 50 buses.

Mr. JACKSON. It may be they are going to show a sample of the goods, but what they have been trying to do—Mr. Mead, who was formerly general manager of the Fifth Avenue Coach Co., of New York, is promoting the Detroit Motor Bus Co., and he has been trying to secure indorsements from the Better Business Bureau of Detroit. I was one of the men to whom they submitted his figures, and I found them altogether too optimistic. There was nothing that could make me believe that anybody who operated outside of Woodward Avenue, just on the boulevards, could expect to get as much money per bus mile as the New York company gets under the most favorable conditions in this country.

The CHAIRMAN. Is there some hope of having the bus supplant the electric line in New York?

Mr. JACKSON. It is not a case of supplanting, it is a case of supplementing. The Woodward Avenue line is now carrying, or least did carry during the rush of the war period, more passengers than the original Interborough subway of New York. They were giving it two-car train service 24 hours a day. Is not that right, Mr. Mahon?

Commissioner MAHON. Yes.

Mr. JACKSON. And pretty good speed. Now, the bus company would not be permitted on Woodward Avenue because it is already a congested street. But that is the real street of Detroit as regards shopping. They would permit the operation of the buses only on certain boulevard lines.

Commissioner MAHON. It may be helped a lot by the awfully congested condition of the city. They tried the jitney upon Woodward Avenue, and, of course, it was an absolute failure.

Mr. JACKSON. Was that the time of the Couzens experiment?

Commissioner MAHON. When the jitney first came out they tried the jitney out, and, of course, the jitney failed.

Mr. JACKSON. It all gets down to special conditions—the use of the space. You can not accelerate the buses as fast as street-cars can be

accelerated and you can not get the capacity for a given amount of area, although the double-deck bus in this country indicates that we could have double-deck cars, possibly.

Commissioner WEHLE. What is your impression about the bus system which is just being installed on some of the crosstown streets of New York by the city government of New York?

Mr. WARREN. Downtown.

Mr. JACKSON. That is an absolute necessity. Whether it is going to make any money or not is a question. I think it has a better chance of making money than the street-cars, because the street-cars were terribly handicapped. They were just little storage-battery affairs. They could not make any kind of speed. They could not butt any opposing traffic out of the way. The bus will run close to the curb and pick up a lot of people and carry them short distances who would never think of using the street car for that purpose. I believe very strongly in the use of buses for those east-side streets. Anybody that goes downtown in New York about 5 or 6 in the evening will see the sidewalks black with people walking crosstown from the lower west side to the lower east side, and it is for that class that a bus service would be a boon.

Commissioner WEHLE. Do you think that that bus service is going to pay?

Mr. JACKSON. I do not think it would pay at a 5-cent flat rate, but I think it would pay if they were to divide the lines up into sections of about a mile and charge 5 cents for each section. That is the place where I would like to see the zone fare tried.

The CHAIRMAN. If there are no further questions we will stand adjourned until 10 o'clock to-morrow morning.

(Whereupon, at 10 p. m., the hearing was adjourned to Tuesday, September 30, 1919, at 10 a. m.)

WASHINGTON, D. C., *September 30, 1919.*

The commission met pursuant to adjournment at 10 o'clock a. m.

Present: Parties as before.

The CHAIRMAN. Mr. Ogburn, who is your first witness this morning?

Mr. OGBURN. Our first witness is Mr. R. S. Bauer, of Lynn, Mass. Before Mr. Bauer goes on, I would like to make this announcement: It was expected that Mr. Henry Ford would appear here this morning to explain the operation of his self-propelled street-car.

Mr. Ford wired that, in view of the fact that tests had not been completed, he would not care to make an explanation or statement in regard to the car until those tests had been completed; and the Kihlman Co., of Cincinnati, who are building the body for him, wrote also that they would withhold any statement of the operation of the car until these tests had been finally completed.

The CHAIRMAN. Have you any information as to when the tests will be completed?

Mr. OGBURN. They did not know.

The CHAIRMAN. Will you take the stand, Mr. Bauer?

STATEMENT OF MR. RALPH S. BAUER.

The CHAIRMAN. What is your full name?

Mr. BAUER. Ralph S. Bauer.

The CHAIRMAN. And your residence?

Mr. BAUER. Lynn, Mass.

The CHAIRMAN. You may proceed, Mr. Bauer.

Mr. BAUER. In 1908, as president of the Lynn Board of Trade, I first became interested in the trolley-car operation from the standpoint of service. Our organization had had a transportation committee for a great many years but, unfortunately, no member of the committee had either the time or the inclination to devote himself to the problem seriously and try in some way to find a solution for the troubles that then existed, which were purely troubles of service.

We were in a territory that was operated by the Bay State Street Railway system, a system, as you probably know, having 1,000 miles of track and operating in 91 cities and towns in eastern Massachusetts.

It was a banker-controlled street-railway utility. The service at that time was inefficient, miserable, and creating protests all over the district. Mind you, at that time there was no question as to rates of fare at all.

Satisfying myself that someone from the organization should attempt to devote a large amount of personal time and effort in studying the problem, I took the job upon myself and visited cities all over the country, making a survey of their operating systems, their types of equipment, the manner by which they were controlled, and all that sort of thing, and in that way I became, as I thought, and as others thought, quite well equipped from the standpoint of a layman to discuss intelligently the troubles that we were then trying to solve, which were, as I said, troubles of service purely.

In that survey I found that conditions in Lynn, my own city, were about similar to those of other cities everywhere.

In the early days of the street-car service there were four competing companies in Lynn, each one of them to a very large extent paralleling or feeding into the other's territory, a waste of investment, a waste of service, a condition that really forbade, if extended to any great extent, a return on the capital invested.

Then I found that a little later on in the nineties banking interests in New England became interested in the street-railway problem, and believed that by consolidating these competing companies there could be evolved from such consolidation a unit system which would pay tremendous profits. Securities were advertised and sold with that statement connected with them through the most responsible banking houses in New England.

It created a state of mind in everyone that the street-railway service was a tremendous profit-producing arrangement, and that all anyone had to do was to invest in securities and in a year or two lie back and reap in the reward.

I found, further, that the ground hogs in the different communities—the land speculators—had brought certain influences to bear on the local governments which compelled the street railways to

build extensions into property for the sake of adding rental and sale values to pasture land, and the politicians in charge of the localities in those times brought sufficient influence to bear on the railroads to compel them to build that kind of extensions, which were never profit-producing lines.

So when the unit system was eventually formed it took in all of these miles of nonproductive track, together with, of course, a certain number of miles of very productive track.

The Bay State system has around 1,000 miles of trackage. Out of that 1,000 miles there are about 320 miles that were built purely for speculative or competitive purposes, that have never been profit producing from the time they were first laid. They would not be profit producing to-day at any rate of fare that the people would pay to ride on the trolleys.

So the systems became so water-logged by abuses from without and abuses from within that when the day of high cost of materials and standardized cost of labor on an hour basis rather than on a weekly basis arrived, it became no longer possible to make any kind of a return on the capital invested, except by way of allowing the property to become obsolescent and by refusing to keep up the property anywhere near efficient condition for operation, and deterioration effects of that kind.

So for years—a few years—profits were really shown, and dividends were really paid on securities because of the fact that they allowed the properties to deteriorate; which, in my judgment, is another way of watering stock backward.

So when the time of stabilized costs of materials and stabilized costs of labor, based on an hour basis rather than a weekly basis, arrived, the properties became in a very precarious condition, and service has been abandoned, service has been cut down, and the communities everywhere have been retarded in their expansion, in their growth—financial, industrial, and social—and instead of looking at the problem as I did at the start, purely from a transportation-business arrangement, I kept finding further and further, as I looked into it and analyzed it, that the whole proposition of street-car transportation was so closely interrelated to every effort of progress and prosperity of the community that it never should be regarded as a transportation-business arrangement at all. The transportation problem of our street railways, to my mind, is purely a social problem, and if it is ever solved at all it must be solved from that slant and from no other.

The arrangement was started wrong, and it has been kept in operation wrong, and it never will be right until it is based on a foundation that is right—fundamentally right.

The car rider and the communities and the street railroads—their interrelating conditions—have never been properly understood, and attempt has always been made to finance the street railroads from the car rider, which, in my judgment, is absolutely wrong, and never can be right.

The car rider is a message of prosperity if he is anything at all. Every time he comes into a community he brings either labor with his hands, effort of his brain; he comes in to transact some business, professional or otherwise; he comes in for the sole purpose of doing

something that leaves a permanent, profitable asset to the community as a community.

I have never yet found anyone who could controvert that statement; and if that is so fundamentally, why should we tax the car rider every time he tries to come into the community to leave something there that is a permanent benefit and asset to the community?

The factors in the community that have made the ever-increasing, tremendous profits out of street-car operations have never been called upon to contribute a fraction of a dollar to the operating costs of the very factor that has made those profits, those ever-increasing expansions, potential possibilities, possible.

Take, for example, the largest department stores in the center of any city. They could not be anything more than a successful store in a country town, were it not for the fact that the street-railway systems for miles in all directions bring messengers of prosperity in the shape of car riders into their district, and leave them there, quickly, efficiently, inexpensively, for the department stores and other merchants to exploit. It is the fundamental reason for their profit-producing and prosperity-making possibility. Yet the department stores have never contributed a fraction of a copper to the upkeep of that service which makes that profit to them possible, and the only thing which makes it possible.

Take the manufacturers—a large manufacturer who makes his profits by ever-increased production rather than on a unit sale, as the street-car companies insanely try to do at the present time. He makes his profit from production because it is possible for him to have landed at his factory gates at 7 o'clock in the morning, from miles in all directions, workers who take his raw materials and work them into the commodity that he puts onto the market for the service of the world. Those workers are brought there by street-car arrangements. There is no other way on earth of getting them there, and if it were not for that street-car service these large manufacturers could not exist on the same scale that they now do, operate or make the profits that they do year after year; and yet the manufacturer has never contributed a fraction of a copper to the upkeep of the very factor that makes the tremendous product of his business possible, the factor that brings his workers to the doors at 7 o'clock in the morning.

The outlying land values, both rental and sale, the land values of every part of the city, both rental and sale, the office-building possibilities from a rental profit-producing standpoint and everything of that nature is only there as it is because it is within striking distance of a street-car service that makes that particular district available to thousands of people scattered in all directions, and from that district these profits are made. Yet any one of these factors up to the present moment has never contributed a fraction of a copper to the upkeep of that very system that makes their life possible.

Gentlemen, I tell you the thing is fundamentally wrong. It was never founded on a firm foundation. It has been carried forward as a speculative dollar-producing arrangement when really it is the very life of every community it operates in. And, as I analyzed these different factors which make up the street-car-transportation arrangement and the assets and profits and values created by them,

it brings to me more and more—and I can not shake it, and I venture to say if you men start in and analyze the question from the standpoint of really finding out what the trouble is that you will arrive at the same conclusion; and that is that the whole arrangement of local transportation is purely fundamental and never can be anything else except a social problem, and from that slant it must be drawn. No other solution of it is anything more, to my mind, than a temporary expedient, further annoying and further aggravating every factor in the community.

The banker control of our street railways has been the real reason of their existing during all these years without anyone finding what the real question was, without anyone understanding the philosophy relating to the community on the one side, the car riders on the other, and the street-railway system as a factor in both. They have regarded it purely as a speculative dollar-producing arrangement, nothing else. Their whole drive has been along that line. And the time has come now that any rate of fare which will pay a return on the capital invested is a larger rate than that at which the people will ride. Therefore, the thing that presents itself to you men, as I see it, is to recommend some readjustment of the railway service that will restore to the communities the service-producing possibilities that the communities are entitled to have from that factor.

This service-at-cost plan, so called, is a plan that is only a temporary expedient, because of the fact that there are no measuring standards of efficient, economic, and careful operation by which the public who ride on the cars can determine whether or not those costs have been proper ones.

The public-trustee plan as worked out by the Boston Elevated Railroad, in my judgment, is a colossal blunder. It nullifies every effort to careful, efficient, and economical street-railroad management. The trustees as appointed by the governor are most all of them lawyers; no one of them street-railway operating men; they have shown neither courage nor initiative in handling the property, and they have chased the rates of fare up to a point now that the people ride on the street-cars at a 10-cent cash fare about the same as they do on ambulances—only when they have to. The cars are running in New England, in the Bay State territory, and the Boston Elevated territory on a 10-cent cash fare. Eighty per cent empty 18 hours out of every 20; only 2 hours out of the 20, one in the morning and one in the evening, are they performing a real public service. And I doubt very much whether there can be any solution that will bring a return to the capital invested based on any rate of fare that the people will pay and ride.

I sometimes think that the street-railway proposition is passing through the same process of elimination that the stagecoaches did in the forties and fifties; that the tremendous investment necessary to get the electricity into the controller box onto the street-car so that the car may be propelled is so great that no rate of fare at which people will ride will ever pay a return on it. That makes it an economic impossibility.

I am not prepared to say that the jitney bus is the immediate solution; it certainly is not in the larger cities with their narrow congested streets. But from an economic operating standpoint, the gaso-

line engine based on the capital invested has got it all over the trolley car to such an extent that you just simply can not talk about it.

I could give you a concrete example of the most productive inter-urban piece of track in the Bay State system, operating between Lawrence, Mass., and Salem, Mass., 17 miles of track, single track, with turnouts for cars coming in the opposite direction. It is the most productive piece of interurban track that that entire system has, yet it involves a capital investment of over \$500,000 for that 17 miles. The cars make a run once an hour. It takes an hour and a half to go the 17 miles, because of the waits on the turnout. They get a 55-cent fare. Any commercial manufacturing institution would not operate a proposition like that for a minute; they would wipe that investment right off the slate and begin all over again.

You can invest on that line \$30,000 in six automobile buses, using only four of them, holding two for emergency, make the run in an hour as against an hour and a half for the electric car, make two trips an hour instead of one trip an hour as with the electric car and carry people for 40 cents instead of 55 cents and then show a tremendous profit, because you only have to make a return on a total investment of \$10,000.

Commissioner GADSDEN. Is it being done?

Mr. BAUER. No; it is not being done.

Commissioner GADSDEN. Why?

Mr. BAUER. The railroad people can not see it.

Commissioner GADSDEN. Why don't you go into it, or, I mean, some independent person go in and make money?

Mr. BAUER. They will.

Commissioner GADSDEN. Well, they have not gone in yet.

Mr. BAUER. They have not gone in yet.

Commissioner GADSDEN. Is not that the answer?

Mr. BAUER. That is the answer, absolutely. There is an investment of \$30,000 on the one hand that will give a twice-an-hour service for 40 cents against an investment of \$500,000 on the other hand that gives an hourly service, an hour and a half to make the trip, at 55 cents.

Now, that is the condition everywhere—not only there, but that is typical of interurban service of that character. The investment is so tremendous to get the electricity into the controller box of the car that no rate of fare under present modern conditions will ever again enable people to ride so that those cars will perform a public service.

Now, what does that mean to the communities? What does it mean to every factor in the communities everywhere, unless something is done to change that character of serviceless transportation into a character of transportation that will enable the communities to further expand, further prosper, and further grow?

To my way of thinking, if it was good business for the people to take over toll roads and toll bridges and spend hundreds of millions of dollars in rebuilding them and repairing them and keeping them up, it is better business for the communities to take over the moving highways, which are the street railways, and carry the people absolutely free of any fare and get the tremendous benefits accruing from the intercommunication of people with other communities. I

can not see any doubt about it. It is economic; it is progressive; there is nothing revolutionary about it. It is merely placing another milestone in the path of progress. That it all. The moving highways are of more importance to the communities from profit-producing and expansion-producing standpoints than elevators are in 25-story buildings; and the theory of free elevators in those buildings is that the riders on the elevators coming into the building leave something with the tenant of the building that adds to his profit or prosperity. That is the only theory upon which elevators are operated in an office building.

Now, if that is good for a mere handful of tenants in an office building and it really makes possible prosperity and profit for them, it is to a much larger extent most beneficent if you extend it to entire communities.

Then there is another side of this question that, to my mind, is probably the most important of them all, and that is the opportunity that the great masses of our working people will have to have a little place in the country where their children can play under their own trees in God's sunshine and fresh air and enjoy all the benefits from that kind of home environment as against the congested 40 and 60 families in a block condition now existing in our factory districts all over this country; a social condition that is unmoral as well as immoral; that prevents every particle of home environment that should be, and makes it impossible for people to live and bring their children up as the kind of citizens we would like to have them.

In Lynn a short time ago I had the honor conferred on me of being director general of a patriotic census. We wanted to find out who was who in the whole territory, both the suburbs of Lynn and the city itself. And being interested in this street-car matter, I had the men who made the canvass—and we made a house-to-house canvass for a distance of about 25 square miles—report to me the empty tenements in the outlying districts and the empty tenements in the manufacturing districts, which were so thoroughly canvassed by them. And I found that when we made the canvass in 1916, or the early part of 1917 and latter part of 1916, in the factory zones of the city of Lynn, there were 217 empty tenements, many of them with their windows boarded up to keep boys from throwing stones through them, and that sort of thing, and in the outlying districts there were only 19 empty tenements.

In 1919 I had those same places checked over, in May of this year. In 1916, when we made the report, it was under a 5-cent fare without any zone arrangement at all, a flat fare carrying people from the $4\frac{1}{2}$ miles in all directions from the center of Lynn for a nickel, or across that circle for a nickel. But in 1919 that fare had developed so that the outlying zone was a 15-cent zone instead of a 5-cent zone, and the empty tenements instead of being 19 had increased to 109, and the empty tenements in the factory district instead of being 217, as they were under the 5-cent fare arrangement, had decreased to 27. So it shows that it is gradually forcing the families back into walking distance of the place where they work.

Many girls are boarding in Lynn in boarding houses in the factory districts. They can not live at home any longer, at Peabody and places like that right around Lynn, because of a 15 or 18-cent

fare or larger, so they come into the boarding-house district of Lynn; and the boarding houses are full of girls who have left their homes in the suburbs because of that economic barrier of carfare between them. Now, I leave it to you men, how long will a condition like that exist and produce the kind of social effect that you and I would like to see produced?

Commissioner MAHON. Is that on the theory that it is cheaper to pay board than to pay the fare?

Mr. BAUER. Yes; time taken to go and come and everything of that kind.

Commissioner GADSDEN. Well, they took the time before.

Mr. BAUER. Yes; they took the time before.

Commissioner GADSDEN. Time is a common quantity, then.

Mr. BAUER. But it all enters into the factor, I suppose, when they determine the thing; the rate of fare is the main drive.

Commissioner GADSDEN. Don't you think it likely that, while that may be an immediate effect, the permanent effect of that zone system will see a decrease in rent in the suburbs which will very much more than overcome the increase in fare? Will not real estate go down there and will not rents go down, and will not that more than offset it?

Mr. BAUER. If under a zone system it could be arranged so that people could come and go inexpensively and quickly, your contention might be practical and a helpful contention, but I do not believe that any rate of fare on a zone system will be a rate of fare that will induce the people to ride in continually from that zone. It will rather compel them to move in within easy distance of the place where they work and, in that way, it will produce a social condition that will be a community crime in a few years. That is another phase of this outside of the other factors that I have gone over.

It seems to me that it may be that this is the beginning of the passing of the electric trolley, that because it is no longer an economic method of transportation some other economic method is going to take its place. You laugh at the crudeness of the jitney buses, and I agree that on an equal rate of fare they are an economic waste. I put in a bill in the Massachusetts Legislature to that effect a few years ago and made the argument along that line. But at a rate of fare of a nickel as against a dime, they become an economic necessity and are no longer an economic waste.

Now, if it is a fact that the overhead investment necessary to get electricity into the controller box of the car is so great that only a very high rate of fare will pay a return on that, then I say that method of transportation is no longer desirable and is being uneconomical and is absolutely nullifying the benefits that the community has always enjoyed from a low rate of flat fare which enables the suburbanite to bring his efforts of profit-producing property into the community at the same rate of fare as anybody else, that it is bound to be supplanted by a gasoline-driven vehicle which can be operated without any such tremendous investment in order to get the power in the car. And as foolish as the jitneys now look, if you will get the old wood cuts of the steam engine in the forties and fifties and look them over and see what they did to the stagecoaches, even as foolish as they looked, you will find that the gasoline-engine-driven vehicle as it exists to-day has made more progress in 10 years than the steam engine did in its first 25 years.

Commissioner WEHLE. If the electric-railway properties are on the verge of becoming completely obsolete, how would you propose that the public should pay for them? In the form of taxation, by making them free?

Mr. BAUER. I believe it would be a good investment for the communities to take those properties at their present physical value, their present worth, whatever that may be, and operate them as a public function; because it really belong there. There is no question about it; to a man who will apply himself to this question more than superficially, there is no other answer that dawns on him. It is a purely public function, and they should be taken over at their present physical value as they stand to-day, and the improved economic means of transportation as they develop will then be owned by the people, not for the sake of producing speculative dollars for private owners, but for the sake of rendering a better, more economical, more flexible, and more efficient service back to the communities that really profit so tremendously from that character of service.

Commissioner MAHON. I do not get you quite clear on that, Mr. Bauer. You say that the electric railway is passing through the same process of elimination—

Mr. BAUER. I say that it may be that that is so. I will not say that it is so; but it appears to me that that is the tendency.

Commissioner MAHON. That was your declaration earlier in your remarks, was it not?

Mr. BAUER. Yes, sir.

Commissioner MAHON. Now you say though that the public should assume and purchase these properties, and I can not understand why you want the public, if they are passing through that process of elimination and about to be wiped out—why you want the public to assume the cost of them.

Mr. BAUER. Because if they do not, through the same capital that has panhandled the street-railway service in every community in this country—the banking interests that have only a Shylock interest in those public-service properties, are the controlling factors of them—if the people do not place themselves in a position where they themselves can get the benefits of these tremendous improvements, these speculative financial men then will again be placed in a position where they can further exploit people with new bunches of securities, based upon the economic operating advantages of a new service.

Commissioner MAHON. Why not take the new service then instead of assuming this enormous cost of the old?

Mr. BAUER. It would be more economic to take and take advantage of it as it develops, in my judgment. This is like everything else—it does not develop over night. It takes months and sometimes a series of years to bring about the perfect development of any kind of arrangement that means economic transportation service, and in that development, in that evolution, the people, if they were the owners of the properties, if they were the owners of these moving highways—which they are—would be in a position to take advantage of those developments, not for the speculative dollar, but for the service they would produce, the additional service they would produce.

I have a point here, a few statements that I have collected from association with some of the best electrical engineers in this country.

You men may know that the Thomson-Houston Co., of Lynn, Mass., first developed the successful electric-railway transportation; the entire arrangement emanated by patient and progressive work of the electrical engineers connected with the Thomson-Houston Co., which is now a branch of the General Electric Co.

Here are some of the profit-producing advances in the arts and science of making electricity and in applying it to the operation of street railroads. Great as they are, they have not been fast enough or shown economy enough to overcome the fact that the entire basis of operating street railroads was built on a foundation of sand—that is, they tried to get the entire operating cost from the car rider, who, in my judgment, is a messenger of prosperity, and should not be taxed at all; but every inducement should be made to him to come into the community oftener than he does, easier than he did, and more frequently, if possible, in every way.

In 1890 it cost \$150 per kilowatt to equip power houses.

In 1916 it cost \$40 per kilowatt, a reduction of 275 per cent.

This is all caused by the advance of the science and art of all street-railway electric-power generation.

In 1890 it took $7\frac{1}{2}$ pounds of coal to make 1 kilowatt with a belt-driven generator.

In 1916 it took $2\frac{1}{2}$ pounds of coal to make 1 kilowatt with a turbo-generator, showing a reduction of 5 pounds of coal per kilowatt; and now they have further reduced it so that it only takes $1\frac{1}{3}$ pounds of coal to make a kilowatt of electrical energy.

In 1890 a car fully equipped cost \$4,000, and seated 22 passengers, which figures out \$181 per passenger seat.

In 1916 a car fully equipped cost \$6,000, seats 57 passengers, bringing the cost per passenger seat from \$181 down to \$105; where a trailer car is used, at a further expense of \$3,000 for the car, this brings the cost per passenger seat down to \$70, as against \$181 in 1890.

Labor costs: In 1890 conductors and motormen received 20 cents per hour, a total of 40 cents per hour for two men operating the car, or 1.8 of a cent per passenger seat.

In 1916 conductors and motormen received 35 cents per hour, a total of 70 cents per hour for two men, or 1.2 per passenger seat per hour. Where the trailer car is used it still further reduces the labor cost per passenger seat to .09 of a cent per passenger seat per hour.

Now, with all of the economies shown by that tremendous advancement in the science of electrical propulsion of street railways, yet the street railways have been worse off, in so far as paying a return on the capital and operating cost is concerned, than they were in the nineties, when costs were so much greater in every way.

It shows further, to my mind, that for the last 15 years the street-car arrangement, except with a very few possible exceptions, has been carried, not on a net profit produced by its operating, but at the expense of the upkeep of the property; and in these 15 years the street railroad properties all over the country have deteriorated, their class of equipment has become so obsolescent that 40 per cent—I feel safe in saying—of the security values of all the railroads have

only a scrap value as their present worth. That has all seemed necessary to the bankers controlling these properties in order to produce a return on capital sufficient to enable them to borrow more money to put into the property.

The CHAIRMAN. You have made a particular study of the Bay State line?

Mr. BAUER. Yes. I have made a very particular study of the Bay State line.

The CHAIRMAN. Which operates through 91 cities?

Mr. BAUER. Which operates through 91 cities and towns in eastern Massachusetts.

The CHAIRMAN. You say it has 320 miles of purely speculative railroad?

Mr. BAUER. Purely speculative, nonproductive track.

The CHAIRMAN. Are those still in service.

Mr. BAUER. Many of them are; some of them are not..

The CHAIRMAN. How many miles have been abandoned?

Mr. BAUER. I could speak exactly on that. Mr. Loring, chairman of the board of public trustees of the Bay State system, will be before you to-day, and he can answer that question to you absolutely accurately; I could not say.

The CHAIRMAN. Is your thought that the lines remaining of these speculative lines can not pay a return upon the investment?

Mr. BAUER. Under present conditions they can not pay a return upon the investment, except in one way, and that is that the public treasuries are called upon to make up their deficits.

The CHAIRMAN. In your judgment the electric-railway problem was begun from the wrong angle?

Mr. BAUER. Absolutely.

The CHAIRMAN. It is purely a social problem, you believe?

Mr. BAUER. No doubt about it.

The CHAIRMAN. And ought to be maintained by the city or the State?

Mr. BAUER. There is no doubt about it—by the public, the city, the State, or the district, whatever it may be.

The CHAIRMAN. In your judgment what would be the condition of the street-railway industry in this country if the problem had been treated in that way?

Mr. BAUER. I think it would have been a great deal different from the present condition of affairs. We would have had a greater service, because the ownership of the property of a public utility is so entirely different. Where the people own a public utility, the only thing they are interested in is service to the community.

The CHAIRMAN. Apply that to your Bay State system which runs through 91 cities.

Mr. BAUER. Yes.

The CHAIRMAN. Would you have that owned by the State or by the different municipalities?

Mr. BAUER. I would have it owned by the district.

The CHAIRMAN. You would have it owned by the district?

Mr. BAUER. By the district.

The CHAIRMAN. What do you mean by the district?

Mr. BAUER. By the cities and towns through which it operates as a system.

The CHAIRMAN. So that it would be joint operation between the city and the township or district?

Mr. BAUER. It has to be. It is continuous, north of Boston, outside of the metropolitan district, and south of Boston, outside of the metropolitan district. •

The CHAIRMAN. Then, you would have ownership of this Bay State system by 91 cities and districts, would you?

Mr. BAUER. Yes, sir.

The CHAIRMAN. Then there would be 91 separate owners of that one system?

Mr. BAUER. There would in dividing it up that way; yes.

The CHAIRMAN. How would you work it out if you did not divide it up that way?

Mr. BAUER. It would have to be done under State legislation, which would organize a transportation area, if you please, and a commission of three people or five people to take charge of and operate the lines in that area.

The CHAIRMAN. Suppose the people living in one of those districts were not disposed to invest any money in the transportation system, how would you get from one district through that to another district?

Mr. BAUER. It would have to be done as everything else is done of a public community benefit: The people of a single part of the district, if their objection was detrimental to a greater number of people in other parts of the district that were for it, would have to be overcome by nullifying their objections.

The CHAIRMAN. And these railroads should haul all passengers free of charge?

Mr. BAUER. No doubt about it; the same as an elevator does in an office building.

The CHAIRMAN. Should the same rule apply to steam railroads?

Mr. BAUER. I am not so sure that the same principle applies. Whether it would work out the same or not I don't know. The steam railroads are a different proposition. They operate on privately owned property. They operate vast distances, connecting up the country. It would be a different problem and, to my mind, would require a different kind of a study. There is no doubt about it.

The CHAIRMAN. In paying the cost of this service you would have to levy a tax upon the community?

Mr. BAUER. Yes.

The CHAIRMAN. You have pointed out that the department store and the apartment house—

Mr. BAUER. And the office building.

The CHAIRMAN. And the office building and—

Mr. BAUER. And the bank and the manufacturer—

The CHAIRMAN. Are all getting special benefits?

Mr. BAUER. And the real-estate owners.

The CHAIRMAN. They are all getting special benefits?

Mr. BAUER. Yes.

The CHAIRMAN. In your taxing process, you would have to attempt to levy a special assessment upon these different kinds of property which are benefited by the street-car?

Mr. BAUER. No; to my mind the benefits are so interrelated to the entire community that, next to the public schools, the street-cars are the greatest community factor in the proper development of its social life.

The CHAIRMAN. But would you have a higher tax upon a department store than you would upon a grocery store?

Mr. BAUER. No; I would have a uniform tax on all stores, the same as you have a uniform tax on all property for school purposes—even property owned by bachelors and old maids.

The CHAIRMAN. Would you have the same rate of taxation on a department store that you had upon a farm in an outlying district?

Mr. BAUER. The same proportion; yes.

The CHAIRMAN. Then there would be no special assessment upon the department store or upon the apartment?

Mr. BAUER. There can not be in Massachusetts. It might be that in some of the other States the beneficiaries of the service—the chief beneficiaries of the service—could be segregated in such a way that they could be specially taxed by a graded scheme of taxation.

The CHAIRMAN. You would have to change the law?

Mr. BAUER. But in Massachusetts the law provides that all taxation must be proportionate.

The CHAIRMAN. So, before you could work out your plan in its fulfillment, you would have to have a change of the constitution in a great many of the States?

Mr. BAUER. In order to tax special interests; yes.

The CHAIRMAN. Do the cities in Massachusetts own their water-works?

Mr. BAUER. Most all of them. I think all of them.

The CHAIRMAN. Do they give the water to the public free of charge?

Mr. BAUER. No, they do not; but they do the next thing to it—they wash the slate.

The CHAIRMAN. Do they own the gas companies?

Mr. BAUER. No. Some of them do.

The CHAIRMAN. Do they give the service free of charge?

Mr. BAUER. No; but at a greatly reduced price.

The CHAIRMAN. Do they own the electric-lighting companies?

Mr. BAUER. Some of them do.

The CHAIRMAN. Do they give that service free of charge?

Mr. BAUER. At a greatly reduced price.

The CHAIRMAN. Why would you have one rule for gas and water and electricity owned by the municipality, and another for street-car operations?

Mr. BAUER. Because of the enormous value of the factor as a community proposition. The street-car, in my judgment, is next to the public school, the greatest social factor in any community. The other properties are a little different.

The CHAIRMAN. In your judgment, the gasoline car will displace the electric car?

Mr. BAUER. I believe it is more economic and will carry people at a lower rate of fare—a far lower rate of fare—and pay a return on the investment as against the electric car.

The CHAIRMAN. And if you are going to substitute the gasoline car for the electric car, it means eventually writing off this large investment in the electric industry?

Mr. BAUER. The same as the stagecoach investment was written off in the forties and fifties, exactly.

The CHAIRMAN. It is your judgment that the public ought to carry that loss, and not the investor?

Mr. BAUER. I think the compensating advantages to the public because of operating the properties as a public function would be enough to warrant the public in carrying that loss.

The CHAIRMAN. Then you answer my question yes.

Mr. BAUER. Yes.

The CHAIRMAN. That is all.

Mr. WARREN. When you suggest the gasoline car as a substitute for the trolley, do you mean such a car as Mr. Ford is supposed to be experimenting with—a car to run on rails, but with a self-contained motor—or do you mean either the present or some improved jitney bus, running at large on the streets?

Mr. BAUER. I mean both, Mr. Warren.

In cities of great congestion, like New York and Boston and cities of that character, there will always have to be cars operating on tracks, as I see it. There is no other method of bringing the people in and taking them out in an orderly way, except on tracks.

In the smaller cities, such as Newark, N. J., for example, or Worcester or Springfield or Lynn, a more flexible kind of transportation, such as an improved jitney, in my judgment would be the most desirable, because it takes people from the sidewalk and leaves them on the sidewalk, and there is no necessity of diving through half a streetful of rapidly moving vehicles at risk or life and limb; there is no delay or waiting because some truck has broken down on the car line, or matters of that kind, and it is a more economic, faster, more flexible means of transportation for those cities where the streets will permit it.

Of course, where the congestion and the streets are against that kind of operation, in my judgment the operation will have to be done on tracks with some such device as Henry Ford is now experimenting with; but the day of the trolley service, electrically operated from the tremendous, expensive power houses, with their enormous investments that are required to get that fluid into the controller box on the car, is passing. They are going as surely as can be. It is no longer an economic force in our business life or social life.

Mr. WARREN. It is not, however, that cost which has made the necessity for increasing the fares, is it—the power end of it?

Mr. BAUER. Power and labor and materials all enter into it; and we will never see them again so that they can be taken advantage of, in my judgment, and give the community a low rate of fare at which the people will ride as often as they desire to.

Now, when you place a barrier between where the people are and where they want to go, so that it retards or diminishes their desire to go, you do the community a positive injury; because it is the greater intercommunication between people and communities that makes possible community expansion, socially, financially, or in any other way; and that is not possible, as I see it, any longer under electric-street-car operation.

See the cars all over where they have a high rate of fare. I was in Newark nine weeks ago appearing before the Public Service Commission of New Jersey, and those great big 50,000-pound cars were pounding their heads off through the streets of Newark, 18 hours out of the 24, and running 80 or 90 per cent empty with "Public Service" on the outside. A joke. They were rendering no public service. No private, palatial car arrangement on earth could ever compete with them. They were exclusive, mostly, for the crew and a few passengers. I told them that they ought to be arrested for operating under false pretenses, that it was impossible to perform a public service under that arrangement; and it is so.

In the business district of Newark for 3 miles I rode all one forenoon, and in that whole forenoon I could not find a single passenger getting on and off the car in the business district; which meant that the greatest productive territory for rides that they had was a dead zone, caused by the uneconomic rate of fare.

Mr. WARREN. You spoke of the transportation area. You mean something, I suppose, like the Metropolitan Park District—

Mr. BAUER. Yes.

Mr. WARREN. Or the Metropolitan Water District.

Mr. BAUER. Yes.

Mr. WARREN. Which contain something like 15 or 20 independent cities.

Mr. BAUER. Yes. That would decentralize the operating arrangements of the railroads and allocate them to certain districts, which to my mind is very desirable and very necessary.

Mr. WARREN. And those districts have existed for some years, have they not—I mean the water district and sewer and park districts?

Mr. BAUER. Yes.

Mr. WARREN. And have been administered by commissions appointed by the governor?

Mr. BAUER. And splendidly administered. There is no scandal connected with any of them.

Mr. WARREN. No one of the communities has a veto on the general plan.

Mr. BAUER. No one.

Mr. WARREN. You think something of that kind should be worked out?

Mr. BAUER. Yes, sir; it is desirable.

Commissioner SWEET. Is it not a fact, Mr. Bauer, that sometimes farmer boys and girls want to come into town for wrong purposes as well as good purposes?

Mr. BAUER. Oh, yes; that will always be so as long as human life lasts.

Commissioner SWEET. For unmoral or immoral purposes.

Mr. BAUER. But I claim, and I think I know a little about it—I live in the summertime in a farming community up on the New Hampshire line and I associate a great deal with farmers—there is as much morality—I will say there is more morality—among the young people on the farms than there ever was among the young people in the cities.

Commissioner SWEET. I am not attacking the morality of farmers.

Mr. BAUER. Of course, there is—

Commissioner SWEET. Wait a minute——

Mr. BAUER. There is some allurements always because of a low rate of fare to bring them in for those purposes, if they are so disposed.

Commissioner SWEET. Now, the question is this: Where people wish to use this facility which you think ought to be furnished by the public without charge, for a wrong purpose—burglars, thieves, anything, escaped murderers—you think that the public should furnish that free of charge just as much as they should for good purposes?

Mr. BAUER. I do not think that you can put the thing up to the public that way, because the public does not countenance the existence of any such factor as that in its social make-up. Whenever they find them, they take care of them. The only ones that operate are those who have not been caught.

Commissioner SWEET. And those that have not been caught—you think the public ought to pay their fares on the street railroads; do you?

Mr. BAUER. I think that is one of the factors of our social existence that you can not very well avoid. You can not legislate from a community standpoint or any other, in my judgment, on immorality or anything pertaining to it. You may penalize it, you may in a way prohibit it, but as for absolutely overcoming it, it can not be done.

Commissioner SWEET. Yes; but the public can avoid giving something for nothing to any part of the community.

Mr. BAUER. Yes; but that is——

Commissioner SWEET. To crooks or the decent part of the community.

Mr. BAUER. The public takes children and gives them an education who afterwards prove to be awful charges on the community, either in insane asylums or jails or prisons; but the public is not to blame for that particular feature of it, in that way. That is the educational part of it.

Commissioner SWEET. The education is supposed to make them better children and better citizens, is it not?

Mr. BAUER. Surely.

Commissioner SWEET. That is one of the grounds for the public's furnishing that service.

Mr. BAUER. But the transportation of people from community to community by street-car arrangement, in my judgment, is fundamentally a public function. It never should have been anything else. I am not so sure but the steam railroads should have been started as nationally owned post roads rather than as speculative opportunities for making fortunes. But of course they were started the other way, the development has been along the other line and in view of the other philosophy, and a correction of that evil might at the present moment bring disaster to the Nation. But when Congress empowered the Government to take over any highway in the Nation for post-road purposes, the Government very indifferently, in my judgment, neglected to take advantage of that authority when steam railroads came into being and operate them as post roads, which they are in every sense of the word. And had that been done from the start we would have a different kind of social arrangement all over the Nation. We would have developed the country faster; the

country would have been built up with a different character of people—the character of the people would have been different. The pursuit of the dollar, the speculative dollar by the factors which were allowed to develop the railroads has been responsible for the labor conditions that we are now passing through, in my judgment, more than anything else. The world is passing through the same conditions. We have no monopoly on that. It is a world-wide condition.

Commissioner SWEET. You are aware that European countries where the railroads are owned by the Government, have labor troubles?

Mr. BAUER. Surely.

Commissioner SWEET. Would you carry this down in the scale as well as up, and in little communities that had no railroads at all would you tax the community to send jitneys or something out into the rural districts to bring them in?

Mr. BAUER. No doubt about it. There is no reason for not doing it. The segregated community is as much a part of our community life as if it existed where the transportation facilities had access to it. We take communities that can not afford to maintain high schools and grammar schools and nothing higher than a little red school-house in education, and we spend our State funds in educating children from those schools in high schools and other schools; do we not? Is it not good business for us? Is it not equally good business for us to bring in touch with the larger centers of civilization and social order those parts of the country that are not at the present time in touch with them? It is simply a step in progress. No man can say that because it is uneconomic to reach that place it should not be reached, if we are operating it as a social problem. Of course, if we are operating it for the profit of the dollar, it is a different proposition: You can not discuss it on the same philosophy at all.

But I say that it is a public function to do these things; and while I may be a little in advance of the order of things as they exist to-day, if you analyze the trend of public functions for the past 50 years you will satisfy yourself, in my mind, that this is the next step—no doubt about it. It is the most desirable step; it is economic; it will not cost as much to operate as it does now. All the awful wastes of operation which enter into banking control of our public utilities will be eliminated; all the awful expenditures for legislative fix-it lawyers will be eliminated; it will be no longer necessary to pay a law firm \$500,000 in five years to go to the legislature to protect their interests.

The thing is economic. The operation in the metropolitan district operated by the Boston Elevated to-day could be done at an increase of \$10 on \$1,000 in the entire district and carry them absolutely free. What does \$10 on \$1,000 mean? We now have a 10-cent fare in that district. It means that a man that has to ride at all pays \$1.20 a week to go and come from his work. If his wife and daughter go down town shopping once a week it means that there is an additional 40 cents gone there. If he and his wife and daughter come down town only one evening a week to go to the movies it is an additional 60 cents there a week.

That man may live in a property that is valued at \$4,000. That would be the average valuation, either of his home or if he rented, of the property that he occupies. It costs him, under the present arrangement—under a 10-cent fare—\$120 a year for the most restricted kind of car riding—a car riding that does the community a damage because it keeps these people from coming in as often as they wish to. Under the carry-them-free arrangement it could be done at an expense to him of \$40 a year, \$10 on every \$1,000 valuation, giving him unlimited car-riding possibilities, not only for himself but for everyone else in the community.

Can you say that that is not economic? \$120 a year at a 10-cent fare with the most restricted kind of intercommunication between that little family and the center of the community they want to ride into, as against \$40 a year with no limit at all as to the riding possibilities into that community? There is the problem. It is simple enough. A slight calculation will show you that the figures are not inaccurate.

Commissioner MAHON. Mr. Bauer, you have made a great study of that matter. I want to ask you if you have ever thought about controlling your car conditions. You know something about that, of course?

Mr. BAUER. Yes.

Commissioner MAHON. How would you control that?

Mr. BAUER. We could regulate the abuses of riding the same as we regulate the use of the streets and sidewalks at the present time. We control traffic on our streets, or try to. We control congestion on our sidewalks, or try to. We could do the same thing with the free rider, or try to. There would be no need of conductors under that plan.

Commissioner MAHON. That is what you say, and yet—

Mr. BAUER. One-third of the expense of operating street-cars to-day is the conductor-platform expense and the auditing of the fares as collected. That would be wiped off immediately. There would be nothing like that at all. But under any kind of public functioning there is always possibly a chance for abuses to creep in; but they are so minor when you weigh them against the benefits derived from it that really you can not argue from it at all.

Commissioner MAHON. I think you overlook a big item there. Now, I have some experience as a railroad man and I know something about running cars where there have been free conditions, and as to our trouble in controlling the passengers riding on free cars.

Mr. BAUER. Has it been a mixed condition, or is it all free?

Commissioner MAHON. I have seen it where we have had stub ends of lines and where we have carried people free for a certain distance. I have in mind my own city at one time, and we had all the trouble in the world with conductors on the cars, to keep it controlled, because the crowds would come on and we could not regulate the riding. The minute we would throw that condition open to a big city, in a district where thousands of men and women are coming at the congested hours, without any conductor or anything else as you propose in your plan—how are you going to control and operate that system?

Mr. BAUER. There would undoubtedly be, in the early stages of a new departure of that kind, considerable confusion. There is in everything we attempt that is evolutionary. It always creates at the start considerable confusion. But I have enough faith in the people of the communities, in their right thinking, in their vision of the fact that this service is their service, and when they abuse it they abuse themselves; that with modern type of equipment, with automatic closing steps and closing doors, that a man on the platform operating the car could come nearer regulating the proposition better than is done at the present time; because there is a feeling of contention at the present time between the people who want to ride and the railroad companies. The railroad companies, unjustly very often and also justly very often, have created a state of mind in the riding public that the average passenger says: "Oh, they can go to h—, they are no good anyhow. We will see about this." But if the people themselves owned that property it would not be a great while before that would disappear entirely and they would come to the state of mind that that was their property and if they abused it, it simply meant that they abused their own privileges; together with certain reasonable regulatory arrangements such as we have now for traffic on the free highways and the free sidewalks; why, there is no doubt in my mind but what the thing could be worked out pleasantly, efficiently, and in a way so as to bring the greatest possible prosperity to the communities.

Of course, a man has to have faith in the people who make up the community, and my experience with the average people has been that they want to do the right thing. If you can show them in a reasonable way what the right thing is they will follow it.

The CHAIRMAN. Mr. Bauer, you have presented us a very interesting summary this morning of your views, and we thank you for coming down.

Mr. BAUER. Mr. Chairman, I feel it is the duty of every citizen in this country who has made any study at all of the street-car transportation to give this commission the benefit of it, because of the fact that it is so vital to the prosperity and progress of the community itself. And it is the lack of appreciation of that—the lack of understanding of that philosophy—that has brought the conditions of street-car operation more than any other factor to their present existing condition.

The CHAIRMAN. We are very glad to have your views on the record.

Mr. Ogburn, who is your next witness?

Mr. OGBURN. The next two witnesses are Mr. Beeler and Mr. Loring. In view of the references to the Bay State system, or the Eastern Massachusetts street railways by Mr. Bauer, and in view of the fact that Mr. Loring's testimony is rather brief, it might preserve the continuity of this hearing more to have Mr. Loring precede Mr. Beeler, if that is entirely satisfactory to Mr. Beeler.

Mr. BEELER. That is satisfactory to me.

The CHAIRMAN. Mr. Loring, are you ready to proceed?

Mr. OGBURN. Mr. Loring is chairman of the board of trustees of the Eastern Massachusetts Railway.

STATEMENT OF MR. HOMER LORING.

The CHAIRMAN. You may proceed, Mr. Loring.

Mr. LORING. I have not come here to impress upon the commission any particular panacea for the street-railway situation, but Mr. Ogburn thought, and I agreed with him, that over in Massachusetts on the Bay State Street Railway, we had perhaps in the last few months proven, at least in that particular case, some things which other companies have not yet had the opportunity to try out.

The Bay State system, as you know, comprises the system north and south of Boston in eastern Massachusetts. It is long in mileage, but short in prosperity. The company has over 900 miles of track. It was a consolidation of 72 different roads over a period of about 30 years, and they were finally drawn together into one property. The rising cost of everything caught them with an income practically stationary as the result of the encroachment of the automobiles and other things, and the company went into the receiver's hands in December, 1917. It was reorganized this year, and public trustees took control on June 1 under a special act of the legislature.

Now, the main features of this act—perhaps you are not familiar with it—are first, control by public trustees appointed by the governor; second, the regulation of fares on a service-at-cost basis; third, a 6 per cent return to the money actually invested; and, fourth, the important point that the State came forward and gave financial aid to the company.

Other features which are important were: Release from paving for a period of two years; a part of this act permitting cities and towns to contribute to the support of the company in order to keep in operation small lines which might otherwise be abandoned; and finally, a provision for public ownership in the event that later on it should be advisable.

The governor appointed a commission wholly nonpolitical—and as a matter of fact I do not to-day know the political views of any one of the trustees, and I do not think they know my own—a wholly nonpolitical commission, and made up very largely of those who were able to give a great deal of time to the profits of the company.

The funds for improvement, of course, were absolutely necessary. The State provided those by guaranteeing to pay at maturity, if the company were unable to do so, \$2,500,000 of serial bonds. These bonds were secured by mortgage under the general mortgage on the property, and that enabled the company to sell those 6 per cent bonds and they realized par for them, and that has provided us with ample funds. Including what the reorganization committee provided—about \$1,000,000—we have ample funds for two to three years in all probability.

The trustees have been able to discontinue lines; and that is a feature which I feel is of growing importance in street-railway business. The receiver, during the receivership, abandoned about 45 miles of track. The trustees, after careful study, discontinued the operation on September 1 of about 65 miles of track. We have under suspicion, as it were, probably from 150 to 200 miles more.

The trustees have divided the property up into operating districts, each district wholly independent, and the fares in each district are

to be fixed according to the earnings and expenses in each district; and the result is we at once have gained a great deal of support in the abandonment of lines, because if there are some poor-paying lines in a district that district, in order to get low fares, is not only willing but anxious to throw out this poor mileage. The result is that, for the first time, we are able to take up this subject of discontinuance with strong backing by the communities near by. That has been very, very helpful and I think it will enable us to either discontinue the unprofitable mileage—or what I hope will happen—will be that the cities and towns directly affected will come forward and be willing to help support that mileage. The provision in the act that I refer to enabling the cities and towns to contribute is rather complicated, and up to the present time no cities and towns have availed themselves of it, largely because there will be four or five towns involved on a line, and there is always some one town that sits back and says, "We guess we can get the advantages without paying anything," and that has blocked the situation so far in every case. I hope the legislature will straighten that out at the time of this extra session.

The trustees, of course, have absolute authority over fares. In the first instance, we are permitted to fix fares at what, in our judgment, will be the cost of service. After that fares are to operate on the service-at-cost basis automatically, somewhat similar to Cleveland. We will fix fares for each district, and then two above and two below, and they will operate automatically. Of course, this ability to fix fares as we please—we have only had for a very few months, but we can already see, as you can imagine, very great advantages from it.

Commissioner WEHLE. What do you mean by two above and two below? Will you explain that a little more fully?

Mr. LORING. Well, I can not explain it very fully, because we have not fixed it yet, but the intent of the act is: For instance, if we should start the Fall River district with a 6-cent fare, then the act compels us to perhaps fix 4 tickets for a quarter as the stage upward, and a further stage of perhaps 7 cents and two also below the 6 cents, and then when the reserve fund—we have provided for a reserve fund similar to Cleveland's—when the reserve fund is reduced or increased to a certain amount, the fares will automatically increase or decrease.

The history of fares on the Bay State Railway—

Commissioner WEHLE. Excuse me just a minute. At what point does the reserve fund come into the list of expenditures, which are made by the company before the dividends come into being?

Mr. LORING. Let me see if I catch your point.

Commissioner WEHLE. What is the list of items which the nickel has to take care of, or the 10-cent piece, or whatever it is—

Mr. LORING. Including the cost of service, is that what you mean? What items are included in cost of service according to the act?

Commissioner WEHLE. Yes.

Mr. LORING. Operating expenses, all maintenance, depreciation, which in the judgment of the trustees is ample, and a 6 per cent return upon the money invested, as fixed by the public-service commission. That is, the money actually invested was determined in a rate case decided in 1916 by the public-service commission. And that

has been enlarged by the money since spent, all items having to be approved by the public-service commission, and that becomes the amount upon which 6 per cent interest goes into cost of service.

Commissioner WEHLE. The valuation then is not valuation on the basis of cost of reproduction to-day, but is the money actually invested at the time it was invested, and on that 6 per cent is allowed.

Mr. LORING. The money actually invested, but in the so-called Bay State valuation in 1916 the public-service commission very liberally slashed capitalization to take care of what they thought—they thought there was evidence of an inflation in the early days of the company, so they took that out with great care. Of course, we have had, as you understand, stock-watering laws in Massachusetts, which have been fairly effective—since 1892, is it not, Mr. Warren?

Mr. WARREN. So far as street railways are concerned, it runs back as far as 1874 on the stock.

Mr. LORING. Yes; but in the early days water did creep in in some few instances, and the public-service commission in making its actual cost appraisal, as they did, took out many millions which they suspected, and I have no doubt rightfully so, was water.

Commissioner WEHLE. That was in the 1916 decision of the public-service commission?

Mr. LORING. The case was started in 1915 and decided in 1916; was it not, Mr. Warren?

Mr. WARREN. Yes.

Mr. LORING. The fare history of the Bay State has been comparatively brief—not covering a brief period, but there have been very few changes.

Commissioner WEHLE. Pardon me a moment before you proceed. I want to get accurately the items that you mentioned: They are, first, operating expenses; second, depreciation; third, your 6 per cent on money invested? Are those the three items—

Mr. LORING. Those are the three main items. The act particularly provides that depreciation must be charged, which the trustees believe to be ample, recognizing that those charges had been too small in the past.

There are only three changes in the fares which can be considered important, and those have all been made within the last 18 months. The first was the increase to 6 cents. There were one or two little minor changes, not worth consideration. Then there was the increase to 7-cent-ticket fare and 10-cent cash fare, January 8, 1919, and the increase which the trustees made to 10-cent straight fare on July 1, 1919.

We are able to get from those changes some data that has interested us very much and I think will interest you. For instance, the change was made to 7-cent-ticket fare and 10-cent cash fare in January. January and February were abnormal months this year. They were months with no snow and were hardly comparable with the very stormy months last year. So we simply cast those aside in consideration of the matter.

When we get to April and May, however, we reached really comparative conditions, and we made an increase of 25 per cent in April and almost 25—24 and a fraction per cent—in May over the previous year.

We now go back another year to the 5-cent fare, and we made an increase of 36 per cent over the 5-cent fare of two years ago in April and 37 per cent in May.

In June we had a strike lasting many days which threw out all comparisons.

On July 1 we increased the fares to 10 cents straight by eliminating the tickets. In July, although it was a normal month—yes; it was really a normal month; we had one or two more stormy days, but it can be considered as close as you can compare—in July our gain in gross went down to 14 per cent; that is, with the 10-cent fare.

Comparing the earnings of that month with two years ago with the 5-cent fare, we made a gain of 19 per cent, with 100 per cent increase in fare.

In August we made a gain of 18 per cent compared with the year before, and a gain of 25 per cent compared with two years before with the 5-cent fare.

Of course, although two months is not conclusive, nevertheless we drew the conclusions, and I think anyone would draw the same conclusion—that somewhere between 7 and 10 cents we passed the economic point for getting the largest amount of earnings out of our population. And where it is we do not know. We have made many experiments to find out.

The reasons for the results we figure to be these: Our cities are comparatively small. Our largest city has about 140,000 population. We have four cities above 100,000. But in cities of that size the average ride is short. Those are industrial cities, and like most of our New England industrial cities they started by the population centering around the mills, and it has grown up from that point.

The result is our average ride in cities like Lowell, Lawrence, and Fall River, and probably Lynn, will not exceed a mile and a quarter.

We have come to the conclusion that that is responsible, to a very great extent. All you have to do is to go in the hours of the morning and see the people walking to fully appreciate that the right to fix fares on our road, and to raise them, is not a very valuable right. We have already passed the point and must reduce. We have gone beyond it for all time.

Another element, of course, that must be considered, is the jitney; and on that I will give you a few observations later.

Mr. WARREN. If I may interrupt for a moment—

Mr. LORING. Certainly, Mr. Warren.

Mr. WARREN. Have you any figures that show how much—what percentage of the public ride on the 7-cent ticket and on the 10-cent cash fare?

Mr. LORING. I am sorry to say that we have not, for this reason: We installed fare boxes a year ago, which count the money instead of counting the passengers, and the result is that at that time we entirely lost count. We have made some very close estimates in certain cities.

We are taking the cities and studying them one at a time; and we find that, taking July and August, with the 10-cent fare and two years prior with the 5-cent fare, we have lost in many cases as much as 40 per cent of the traffic—40 per cent of the passengers are actu-

ally walking or finding some other means of conveyance less than two years ago.

Of course, our operation as trustees has been only a few months. We have drawn certain observations which may be of interest to you.

In the first place, we are gradually getting the confidence of the public back; and I assure you that the confidence of the public was entirely lost to the old company; and although four months is a short time, we feel—and I think the public officials all over the Bay State feel—that the trustees are really public trustees; that we are trying to give them the service that we can at as low fares as we can, subject to the conditions imposed upon us by the act.

I really believe that 12 months of public-trustee operation, if it is successful, and we hope it will be, will get the public back to work with us; and the public has not worked with the Bay State almost within the memory of man. They have worked against them.

We have concluded that many experiments are necessary in order to find what fare is the proper one. As we view it now a great mistake was made—to take the Bay State territory as a whole, 900 miles—and try to find one fare that would fit every city. The conditions are completely different; and as we view it now, it was as impossible as to find a suit of clothes that would fit men of all sizes.

We are now taking each city by itself and are studying it with the idea of finding what will bring us the largest returns.

Of course, under the act and under the broad authorities that we have we can do that; but it has convinced us that with almost all street railways a large amount of experimenting must be done before you can find out what fare the public will take to. They are very, very peculiar, and they differ in all of our cities.

The results of the 10-cent fare—while I have given you the average results, the results vary widely in different cities, and naturally because of the average haul.

Take the Boston Elevated Railroad with an average haul supposed to be over 4 miles, and the results which they have obtained from the 10-cent fare have been, I consider, exceedingly satisfactory. They made a 31 per cent gain in August with a 10-cent fare, as compared with 7 last year. There is 31 per cent from a theoretical 45. They told me that in September they were making a much larger gain, part of which they attributed to the influenza last year; but if there is anything we can conclude from their experience and ours in the same general territory, it is that the successful results from raising fares is very much in accordance with your average haul. Is it easy for the people to walk? If so, they will. If the distance is longer you will get better results. The broad powers we have had have enabled us to combat the jitney situation and, to my mind, that is our greatest problem to-day. The jitneys are our greatest problem.

We have made a count in all of our cities every month to determine the number of jitneys and the passengers they are actually carrying; and the number of jitneys, from our May count to our August count, more than doubled; and the amount of money which they are taking away from us increased during that 90 days from \$18,000 to \$41,000 a week, or more than \$2,000,000 a year.

Commissioner GADSDEN. It naturally would increase in summer, would it not, and decrease in winter, Mr. Loring?

Mr. LORING. I do not know, Mr. Gadsden. The jitneys that we are encountering—although in some cities it is the Ford automobile, in others it is buses seating 40 people, inclosed buses, which certainly have been built with the idea that they can operate 365 days in the year.

The CHAIRMAN. Have your higher fares stimulated that jitney development?

Mr. LORING. There is no question that the higher fare has stimulated it. At the same time, we have an interesting case over in Massachusetts, at New Bedford. New Bedford undoubtedly has given for years the best service of any city in the State, and it has been in a class by itself, and it is still running on a 5-cent fare, although they are about to try to get a higher one.

Up to the time that they compelled jitneys, about May 1, to provide a surety-company bond, they had more jitneys in New Bedford, with the 5-cent fare and with better service than any other city, than in any other city in the State; they had 250 of them there. I use that frequently when someone comes in and says, "If you will reduce your fares the jitneys will drop out." We had jitneys with the 5-cent fare. To be sure, we did not have as many as we have to-day; but the men returning from the war have been quite an influence in their increase. Then, of course, the automobile people are exploiting the jitney business to an extent that I did not realize until a few days ago. The department stores are exploiting them. One department store in Salem has loaned \$29,000 to people to buy jitneys and bring the people in to that particular store. The jitney question is a very large one.

The CHAIRMAN. In that case of that department store, Mr. Loring, were the department store's advertisements on the side of the jitney?

Mr. LORING. No; but they ran to and parked in front of that store. They saw that that was the center.

We had an interesting case the other day. We notified the city of Quincy that on what is called Howe's Neck Road, about 4 miles long, we would abandon the road and discontinue service on the 1st of October unless they restricted jitneys. They said that they would not do it. Finally, however, they put it to a popular vote of every property owner, and the vote was 700 to 17 in favor of the street railway. That was the first real encouragement we have had over in our territory.

We take the position that the two can not live in the same community, in the same city. I do not think any halfway measure is going to help jitneys, and the street railway can not live. It is wholly unfair and unreasonable competition.

Commissioner GADSDEN. Did you say that that vote was by property owners' vote or citizens'?

Mr. LORING. Property owners.

Commissioner GADSDEN. Not citizens generally?

Mr. LORING. Property owners on the line. The property owners on that line were given the right to choose which they would have—jitney service or the railway.

Commissioner GADSDEN. Not the general public. That was not a popular vote?

Mr. LORING. All I can tell you is this, Mr. Commissioner: The mayor told me that he would do nothing; that he would see the road in hell before he would do away with the jitneys. He went back and talked with some of the people, and the mayor then sent out this postal-card vote, with the return postal card. We knew nothing about it until the postal cards were in their hands. We took no interest in it whatever, because we had an idea that they thought we wanted to abandon the line and we thought that that was a good state to leave them in. The result was a surprise to everybody.

The CHAIRMAN. How was the question formed?

Mr. LORING. They were simply asked to choose, and to cross out one or the other line. One was: "Do you prefer street-railway service?" And the other was: "Do you prefer jitney service?" Then it said at the bottom: "The street railway will not operate if the jitneys operate. You must choose one or the other." It was a perfectly fair test, however, and to my mind was a very, very important one. It has so encouraged the mayor of Quincy that I feel that there is a fair chance of getting jitneys out of the entire city.

The CHAIRMAN. You think he has changed his mind and that he will invite you to come back on earth again?

Mr. LORING. Well, I don't know; 700 to 17 is quite a majority, and most mayors would pay some attention to it.

Of course, we have a great many cities who are interested in their jitney service and say that it ought to be continued. The competition is so unreasonable, however, that it can not continue.

For instance, we showed the city of Lynn the other day that we paid in taxes \$30,000 in rent, and we ran about 40 regular cars; that is \$750 per car, figured in that way. The jitney bus seats 20 or 30 and it pays an average of about \$25. Now, of course, that is competition that the street railway can not meet; and so far as I can see, the only position that we are going to take is that they can not exist in the same city, and the people ultimately must choose between them, because the way they increase where they are not severely restricted is astonishing.

So far as the restrictions are concerned, nothing amounts to anything except a rigid bond. We have jitneys running in cities where, apparently, the regulations are stringent, but they do not have to provide a surety bond and they can get some near relative, or the city treasurer is not very careful about it, and does not deter them at all. They do not make money generally. They tell us that they do not make money. There is a constant changing of ownership. However, it is pretty attractive. A man says, "If I run a jitney I can be my own boss, and go home to lunch when I want to," and they would rather work for less compensation, I think, under those conditions. I know they would work under those conditions for far less than they would work for us to run a car.

Mr. WARREN. Does what you are saying apply to the jitney bus? When you say "jitney," do you mean these 20 or 30 seaters?

Mr. LORING. Yes; I mean anything from the Ford to those that we have that seat 30.

Commissioner GADSDEN. Did your investigation lead you to think that these buses are an economical success? Can they operate successfully, commercially, in your judgment?

Mr. LORING. Mr. Gadsden, there is a grave question about it. The Ford jitney makes high speed. Some of the mills told me that their help said that they could take the Fords and load up with four or five of the help and run to the other side of the city, with no stops, and they could get their lunch and return that way. Now, it was pretty hard to give any good argument as to why they should not do that. We can not do it with our street railway, because the more people you carry the more stops you have to make and the slower your running time. That is exactly what happens as the jitney buses increase in size. The time slows down a great deal, particularly in the city.

So I gravely doubt whether they have a broad economic use in our cities.

I think it is going to be a serious matter in the future, anyway, Mr. Gadsden, handling the public in our cities. Our streets are fixed in width, the traffic in them has increased enormously in the last few years, and it stands to increase greatly in the next few years, and I do not believe that there is any way found yet to transport people—I am talking about city traffic—as well as by street-cars holding a good many people and occupying a certain place in the street. I doubt it very much. However, of course, it remains to be seen.

Now, just a few suggestions that have occurred to us from our experiences there: The first is that every city differs from every other city, and each street railway must diagnose its own case by intensive study and pay very little attention to what other cities are doing. I think that has been a great mistake. Conditions do vary. Take Fall River and Lowell, two manufacturing cities of practically the same population, and they are not alike in any way.

I just want to mention one thing there which I did not. We are now starting extensive experimenting in fares. Our fares are 10 cents. We have put in a monthly ticket in Fall River. It has been now about three weeks. We sell 50 rides, to be used in the calendar month, for \$3—at the rate of 6 cents. The whole purpose, of course, is that when we sell a man a ticket we have him for 50 rides that month; and we hope it is going to get the people back on the cars.

We have done considerable investigating there, and it is having that effect to a certain extent. People are going home to lunch who have not been doing so before. It does not seem reasonable—the difference of 8 cents, with the cost of everything in restaurants—would induce a man to go home to lunch, but they are affected by those little things.

We have tried in Lowell 16 tickets for \$1. Those went on sale last week. Those are from an inside zone to the center, with transfer only to the depot. In that way we are trying the idea of a fare to the center and doing away with transfers. That has started off with a great deal of popularity and we are hopeful of the results there.

We have taken Taunton, another city—and, by the way, we are doing this experimenting in the cities which have not jitneys, because, of course, we can afford to carry people cheaper there. In Taunton we have sold 14 tickets for \$1, recognizing that each city is different, that some deserve cheaper fares than others, and we are trying to find out what is the best.

I personally believe there is something in the monthly ticket, particularly with the short-haul rides.

As it is now, if the weather is fair and crisp, they walk. If you can sell them a monthly ticket, which they must only use a comparatively few times to make their cost equal to that number of detached rides, I believe it is going to induce them to ride. I think we have got to find some way to get the people back on the cars.

We expect in the next six months in Bay State territory to try a great many experiments, and I fully believe it is only by doing that that we can find the right way; and, of course, under the ordinary, common form of regulation that is very difficult. In a famous Bay State case the decision was rendered 14 or 15 months, I think, after the case was tried, and all the conditions had changed during that time, but the case was decided finally on the conditions almost a year and a half previous.

Commissioner WEHLE. Have any rates by the Bay State been brought down through the ticket system below 5 cents?

Mr. LORING. No. There is great pressure upon us to do that. There is great pressure upon us to try 5 cents. They will say, "Let us try 5 cents." But the trustees fear that the 5-cent fare is gone for all time, excepting for a very limited ride.

Commissioner WEHLE. Has the ticket system led to a reduction below 5 cents in any cities of New England that you know of?

Mr. WARREN. You mean recently, Mr. Commissioner?

Mr. LORING. No; I think not.

Mr. WARREN. Not recently. It did in one or two some years ago, before these high costs struck us.

Commissioner WEHLE. What cities were they?

Mr. WARREN. There was a ticket in Fall River, I think—

Mr. LORING. Six for a quarter; yes.

Mr. WARREN. Six for a quarter.

Mr. LORING. Then there was another over in Lynn—there was a fare all over the Bay State 18 months or 2 years ago, an off-peak fare of less than 5 cents, but it did not induce any traffic. Everyone was disappointed in it. No one could quite explain why it was. But it is difficult to make people ride when they do not want to ride, even for the saving of a fraction of a cent.

I think our experience in the large cities—Boston, for instance—has proven that if permitted to do so the large cities—and I refer to a city of 500,000 or over—could work out their own salvation by an increase in fares. Their haul in most cases is long, and people are more metropolitan in the larger cities, and they are willing to pay the fares.

Commissioner GADSDEN. Do you feel that Boston is going to succeed in working its problem out?

Mr. LORING. Absolutely.

Commissioner GADSDEN. There has been a good deal of testimony here to the contrary, and doubt expressed about it. The commission would be interested in having your opinion on that.

Mr. LORING. I had a great deal to do, Mr. Gadsden, with the Boston legislation—the legislation that brought that about—being interested during that session of the legislature in an association of securities owners. But the trouble was that everyone expected from the Boston plan wholly unreasonable results.

You take the financial results of the first year, which will by all means be the worst year; the deficit was about—a little less than—\$4,000,000; \$2,000,000 of that was a depreciation charge. Prior to that time the largest depreciation charge the company had ever set up was \$200,000 in any one year. The trustees at once put that up to \$2,000,000, realizing that the property needed a great deal of money spent.

Then the maintenance on the property has been wholly abnormal during the year. The company has been starved, necessarily so before; and the trustees, very properly, I think, appreciated that what should be done first was to put the property in condition, which they have done exceedingly well with. Then, of course, the matter of wages nobody foresaw; nobody had any idea that there would be such a large increase in wages during the year.

You take the item of wages, the item of depreciation, and the item of abnormal maintenance, which would not occur and will not occur after the property is once brought up into condition, and you have overcome more than your entire deficit.

I feel that the Boston plan is working fully as well as those who studied it beforehand and who really formed their expectations by careful study anticipated.

Commissioner MEEKER. Would the zone fare increase the income?

Mr. LORING. Nobody knows. You mean in the elevated case, do you?

Commissioner MEEKER. I would like to get your ideas on that.

Mr. LORING. We are going to try a zone fare as soon as somebody can show us how to collect the fares. We are watching this New Jersey experiment with a good deal of interest, and if a way is found, we are very anxious to try the experiment in some of our cities, of a zone plan.

Commissioner MEEKER. Do you contemplate establishing a fare lower than a 5-cent fare for the initial zone?

Mr. WARREN. We have not yet determined that. As I say again, we are watching the New Jersey experiment with a good deal of interest, and if it works well there, we should be very much inclined to try something along the same line in one of our cities.

But the particular point I want to make is that—and from our experience I have changed my views the last few years on it—the companies must do an enormous amount of experimenting, and unless the commissions are urged to be broadminded about it, realizing that they are experiments, and permitting them promptly, I do not see how the companies are ever going to find out the real road to their salvation.

I feel that in our particular case, after perhaps a year of experimenting, we ought to be able to decide what fare in each of our cities will gain us the largest income; but I do not hesitate to say that we will experiment, and experiment again, and if we were hampered, and long public hearings were necessary in order to do it, it would simply be impossible.

Commissioner MEEKER. You spoke of the street-railway car as necessarily being a car that would seat somewhere about 50 people. You have tried on your line the one-man car?

Mr. LORING. We have ordered 200. The first ones will be delivered some time in October.

Commissioner MEEKER. Do you think they will be superior to the type of bus you were speaking about a moment ago, that seats about the same number of people?

Mr. LORING. Yes; they will be more comfortable. They will be heated, and I think there is no question that they will be much more comfortable.

Commissioner MEEKER. Then the limitation in area covered by the street railway would be more than overcome by this element of comfort?

Mr. LORING. I think it will be partially overcome, anyway.

Mr. MEEKER. Do you think it is possible to run a one-man car in conjunction with a zone system of fares?

Mr. LORING. It is entirely possible for two zones, and most of our local cars do not go outside of the second zone. We are running now in Lowell on these new fares we have put in—we have a pay-enter and pay-leave system, by which we can take care of two zones without any trouble. Of course, through the one-man cars we hope to do what others do in certain cases of weak lines—we hope to save some operating expense; but much oftener we hope to increase our frequency of service and give better service at the same expense. That is what we are really hoping to gain.

Commissioner MEEKER. In Lynn, what is the initial fare?

Mr. LORING. Ten cents. There is a single fare in Lynn at the present time.

Commissioner MEEKER. How can you hope to induce walkers to ride at a rate of 10 cents as the lowest fare?

Mr. LORING. We are rapidly finding out that they will walk on a 10-cent fare.

Commissioner MEEKER. Do you think if you instituted a 5-cent initial fare more people would ride?

Mr. LORING. Undoubtedly the lower the fare the more they would ride; but, of course, our situation in Lynn, since we have taken hold of it, is complicated by very serious jitney competition, and we have served notice on Lynn that if they will eliminate the jitneys we will immediately take up the subject of lower fares; but it is useless to expect lower fares so long as jitneys continue to operate.

Regarding the public control, I believe that it may be a step in between the private control, as we have had in years gone by, and public ownership which we may have to face in the future.

I think by State-appointed trustees it offers the reasonable certainty of careful, economical management, particularly if removed from politics, and I believe that the public trustees can in time get the complete public confidence and I believe it has a great deal to favor it. Of course, it has not been of long standing, and I appreciate, as Mr. Gadsden said, that the public was very much irritated in Boston over the 10-cent fares which they did not really think possible, and there has been an inclination to blame the trustee plan for the 10-cent fares. But they are not to blame in any way except probably if it had not been for the trustees the public-service commission would have held the fares down and the company would have gone into the hands of receivers. I think that probably would have

been the result; because it had to be done, and done very, very promptly.

Of course, the question of credit, to my mind, is the most important thing that you gentlemen have to consider. It is difficult enough to establish credit anyway, and it is doubly difficult to reestablish credit after it has once been lost.

Now, the street railways of the country have lost their credit. With few exceptions, I think it is very, very doubtful whether they are going to be able to get the credit back while under private management, and, of course, that becomes, to my mind, the most important argument in favor of public ownership. But through some form of public control by which, as we are trying in Massachusetts, the property is run by public trustees; but the directors of the company are there, with certain duties—and they certainly watch with care what the trustees are doing; it is a safeguard and an admirable safeguard, with public control. Then the State can properly assist, at least until it is determined whether it is going to be possible to rehabilitate the company's credit.

I feel that the credit can not be restored except with certain exceptions under private management. The public is in a state of mind which means that it will grant the companies few, if any, favors. The investors know that. There are so many good investments to-day that I can not even see in the near future any market for street-railway securities.

Of course, a street railway has got to improve. It has got to grow with the community. If it stops, dissatisfaction results. That is so with the Bay State. That was so with the Boston Elevated, when they were unable longer to get money and spend it for improvements. Then the public began to get unreasonable and peevish over it.

So that I feel that through public-trustee operation is a possible avenue by which the State will be justified in advancing money, as it is done in this case.

Of course, the other step is the actual guaranty by the State, as was done in the elevated case. That means, of course, a valuation; but I feel very strongly that all companies have got to meet this question of valuation. I feel also that the sooner they meet it the better off they will be, because I think the public will tighten up in its views of valuation as time goes on. I have felt for some two or three years that street railways had enough to offer sound valuations; that is, while they might not be everything they would expect, they would be much worse in the future.

I am a believer in the Elevated plan in many instances. I believe in all large cities it is an admirable plan. Where the fare can, with reasonable certainty, produce receipts which will equal the cost of service, the guaranty should not be a serious matter, and, of course, I am a believer in the fact that the taxpayer should properly contribute to a certain extent. I think in the Bay State that is going to be done generally by our cities there.

I had the mayor and a committee wait on me the other day from one of our cities, asking whether there was anything to permit them to decide what fare they would pay and then have the general taxpayer pay the balance, and they proposed to go before the legislature and ask for special legislation to do that. There is a feeling that has grown most rapidly.

Commissioner GADSDEN. I thought you had an act in Massachusetts along that line.

Mr. LORING. We have an act, Mr. Commissioner, which is a good start, but all that they can contribute is 50 cents per thousand for towns and \$1 a thousand for cities. The amount is enough to contribute enough to keep us from abandoning the lines, but it is not enough to affect the fares.

Commissioner MEEKER. What is this 50 cents a thousand and \$1 a thousand? What does it mean?

Mr. LORING. On the assessed valuation. Let me show you: It will mean in Fall River \$75,000 to \$100,000. Of course, that would not have a great influence on Fall River's fare.

Commissioner MEEKER. It means 50 cents per \$1,000 of taxable valuation?

Mr. LORING. Of taxable property; yes.

Commissioner GADSDEN. It really recognizes the principle, does it not?

Mr. LORING. They have recognized the principle, and it has grown very rapidly in the last two years. Where you seldom met a man among thinking people, the taxpayers themselves, who felt it ought to be done, only a short time ago, now you find them everywhere.

The trustees introduced in the last legislature a bill that we called the "50-50" bill. It recognized the principle that the taxpayer ought to contribute, but it also tried to get away from what I think is a great mistake, to tell the car rider: "You will pay 5 cents or 6 cents and then whatever additional expense there is the taxpayer will pay."

The 50-50 bill divided 50-50 the cost of service in excess of 5 cents. So that if it were 10 cents the car rider would pay equal to 7½ cents and the taxpayer the balance.

I would anticipate great trouble with the car-riding public if it was guaranteed that its fare would be this amount and no more, notwithstanding what the company spent. I think that is a great error; although I believe there is a strong feeling, particularly over in our community, that that should be done.

That 50-50 bill had the support of some of the largest tax-paying corporations in the State of Massachusetts who believed that it was in the interest of their employees that fares should be kept down, and they were willing to pay something in addition.

Commissioner WEHLE. All of the stock in the Bay State is owned locally, is it not?

Mr. LORING. Practically all owned in Massachusetts; yes.

Commissioner WEHLE. It is very largely and widely distributed, is it not, in the cities and small towns of the State where the company operates?

Mr. LORING. Fairly widely; only fairly, Mr. Commissioner.

Commissioner WEHLE. That circumstance would contribute somewhat to the recent developments of which the 50-50 bill is an instance?

Mr. LORING. Yes; it would somewhat; but I do not think it did to any great extent.

Commissioner WEHLE. Has it inclined public opinion somewhat toward the proposition of the State's assuming part of the cost of operation in the event that the fares did not bring sufficient revenue?

Mr. LORING. That probably had some influence, but I do not think it had a great deal. Of course, the 50-50 bill was not passed by the legislature. They did not pass it. They turned it down. Since that time, however, people who argued against it there in the committees have come to me and said they felt that is was the only way that it could be done in cities of moderate size where it is perfectly evident you can not get the cost of service out of the car rider.

Commissioner GADSDEN. What about direct ownership?

Mr. LORING. How do you mean? My own views?

Commissioner GADSDEN. Yes; what is your view? What do you think? We have had a very distinguished citizen of Massachusetts here express his views on it heretofore.

Mr. LORING. I should dislike to see public ownership tried at present. It presents a great many difficulties. In the first place, is it going to be State ownership or is it going to be municipal ownership?

Our lines are a tangled network of lines, and if the cities were allowed to own it, very serious complications would ensue.

I fully believe that the present plan that is being tried has all the advantages of public ownership, with the possible exception of the fact of a lower interest rate that might be obtained if they were all direct obligations of the State. Outside of that, however, I think it has the advantages of public ownership. The State is justified in advancing money to make improvements, and, of course, it does assure, if the commission is carefully selected, absolutely nonpartisan management. I should be very much afraid to see the cities own their lines, and I should dislike to see the State own them at the present time.

The CHAIRMAN. Had you concluded your formal statement, Mr. Loring?

Mr. LORING. I think so, Mr. Chairman; yes. I have nothing further excepting on this matter of credit.

I feel very strongly that that is the big question that the street-railroad business of the country has before it now, and I am afraid—the fact is, I know—that in many cases in many cities it is put to one side. It belongs right at the front I believe at all times. The companies can not run and serve the public well without credit. There is a constant demand for better facilities, and personally I believe to-day the only way they can be bridged over this exceedingly uncertain period which confronts them is through some form of public credit. And that leads me to say that if the public is going to lend its credit to them, the public must have a decided hand in the operation of the properties during the period for which the credit is extended.

Commissioner WEHLE. What was your connection with the street-railway business prior to your present connection as trustee under the statute?

Mr. LORING. I have been in the banking business, Mr. Wehle, and in that way interested in the operation of some street railways and interurban lines and others throughout the country. For the last two years I have spent a great deal of time on the subject—for the first year in connection with the legislation in Massachusetts the service-at-cost legislation which led up to the Elevated bill and also the Bay State bill. Then when they formed the trusteeship, it was

a thankless task, and I unwisely said I would try it for a year and see what we could work out from it. But my viewpoint is not from the standpoint of a professional street-railway man. It is rather that of one who has been more or less connected with it, but only very intimately in the last two or three years; so that I have been able to bring a rather different viewpoint to the business.

Commissioner WEHLE. Has the Bay State Company undertaken to borrow money within the last year or two?

Mr. LORING. Well, it went into receivers' hands in December, 1917, and it had no credit for some time before that. As a matter of fact, the banks that loaned it money for two or three years prior to that time lost a large percentage of it in the reorganization.

Of course, we have ample funds at the present time. As a matter of fact, the trustees have about \$2,000,000 now invested in short-time securities drawing 6 per cent until we need the money.

Now the State very wisely provided us and the reorganization committee with enough funds to take us with a liberal depreciation account—I hope it will take us three years, but the test will come within that time as to whether we can then walk alone or not.

Commissioner WEHLE. The 50-50 plan you say has not been adopted in any form?

Mr. LORING. The 50-50 plan was not adopted in any form. The legislature felt that it was too radical. But as I say, the people who opposed it six months ago have since been to me and said it looked conservative in view of their later views.

Commissioner WEHLE. Do you expect it will be pushed at the next session of the legislature?

Mr. LORING. No; we are not going to push it, Mr. Wehle, for this reason: We have made recommendations to a street-railway commission that is sitting there now; I sent them in last night before I left for Washington. We have bowed to the view that cities must have more control over these matters. The 50-50 bill was compulsory; the city had nothing to say about it. The trustees were able to assess the cost against them. The cities have told us since that they would much prefer, and they thought the same results would be accomplished by, permissive legislation by which the cities could themselves decide just what part of the cost service each one would pay; and we have suggested a bill of that kind.

Commissioner WEHLE. So there is a general sentiment, you think, in Massachusetts which would bring about a participation on the part of the public through taxation of the burden of operating street railways of Massachusetts?

Mr. LORING. The sentiment was so strong in the last two weeks of the last legislature that I have no doubt if the governor had not stopped the fire by appointing a commission, the legislature would have passed a law putting the Elevated fares at 5 cents, the balance to be borne by taxation, and probably the Bay State. The sentiment was so strong that I think there was no question. It had already passed one branch of the legislature; it had passed the senate, I think it was, and was up before the house, and the governor thought it was hasty action.

Commissioner WEHLE. What was the feature of that bill as to ownership?

Mr. LORING. There was no change. The elevated fare was to be 5 cents and the balance borne by taxation, and in our case the same.

Commissioner WEHLE. The bill did not have a municipal-ownership feature in it?

Mr. LORING. Well, the Elevated bill has a clause permitting the city or the State to buy it if they see fit.

Commissioner WEHLE. The Elevated bill?

Mr. LORING. Yes; and the Bay State also.

Commissioner WEHLE. That is, the bills that were pending before the close of the legislature?

Mr. LORING. No; the present bills.

Commissioner WEHLE. Oh, the laws?

Mr. LORING. Yes; the original acts provided for the contingency of State ownership or municipal ownership.

The CHAIRMAN. You stated that the depreciation of the Bay State this year was \$2,000,000?

Mr. LORING. That was the Elevated, Mr. Chairman.

The CHAIRMAN. The Elevated?

Mr. LORING. We are setting aside a depreciation account of \$1,041,000.

The CHAIRMAN. And that is much larger than has been heretofore charged?

Mr. LORING. Oh, six times; I think \$150,000 was about the largest amount they had ever charged.

The CHAIRMAN. Is it your view that the depreciation that you have charged off fairly represents what should be charged in the future, or is there some abnormal condition?

Mr. LORING. Of course that matter is affected very largely by the prices of material. A million dollars depreciation in the old days of the Bay State would have been a very large amount, but it buys now the same material and labor that \$500,000 would have bought then. The trustees were reluctant about studying the figure as high as \$1,000,000, but after very careful figures of the cost of everything that that would buy which went into the tracks and the power plant and cars, we made up our minds that since the law directed us to charge an adequate amount, no smaller amount would be adequate.

The CHAIRMAN. Since the board took charge you have added largely to the maintenance account?

Mr. LORING. No; we have not. We have done all we could, but the trouble was we did not take charge until June 1 and there was no maintenance organization; it was just as before we could get it organized, so we have had really only about half of a maintenance season. We have done more than they have done in previous years, but much less than we should.

The CHAIRMAN. What was the physical condition of the property when you took it over?

Mr. LORING. Bad.

The CHAIRMAN. Was there much deferred maintenance there?

Mr. LORING. Yes. You take the tire account alone. On 1916, 1917, and 1918 there is a deficiency in the tire account of more than \$300,000 to be made up.

The CHAIRMAN. Is it the purpose of the board to rehabilitate this property and put it in good condition?

Mr. LORING. Just as rapidly as we can.

The CHAIRMAN. You have five years in which to operate these properties?

Mr. LORING. The period of public control is 10 years. The present trustees are appointed for five years.

The CHAIRMAN. At the end of that 10-year period must the properties go back to private ownership unless the State chooses to hold them?

Mr. LORING. The property reverts if the States does not choose to hold it; yes.

The CHAIRMAN. What will be done to repay the State for the large amount of money which it is putting into this property to build it up?

Mr. LORING. Well, of course, that is a consideration that the State pays for the security owners turning over control of the property.

The CHAIRMAN. So it is not expected that the State can be recouped for any expenditure which is made for taking care of deferred maintenance or putting the property in good shape?

Mr. LORING. No; not so far as deferred maintenance is concerned.

The CHAIRMAN. That is to be a contribution by the State?

Mr. LORING. That is to be a contribution by the State. At the same time, we are not fixing the amount of depreciation, Mr. Chairman, at any larger than a normal amount. In other words, the amount we are fixing to-day is insufficient to take care of past deficiencies.

The CHAIRMAN. Under the law the State has the right to purchase this property at the end of 10 years?

Mr. LORING. Yes.

The CHAIRMAN. Does the law permit the State to deduct from the value the money which has been paid in for building up the plant during the control by the trustees?

Mr. LORING. No; the law permitting the State to purchase has two portions: One is that it allows the State to buy it for the amount of outstanding security and the other is that nothing in the law prohibits the State from taking it by means of our laws of eminent domain, and undoubtedly the latter would be resorted to in case the State would purchase it.

Commissioner SWEET. You place the matter of credit—the ability of street-railway companies to get new funds and further funds with which to improve and extend their road—as the big question, I think you said?

Mr. LORING. Yes.

Commissioner SWEET. And the fact that the street-railway companies of the country have lost their credit, speaking generally, is in your mind the most important fact in connection with the subject?

Mr. LORING. I think it is the most difficult to cure of any.

Commissioner SWEET. And you think that we have a big job on our hands to even attempt to get things in such shape as to cure that difficulty and enable the companies to get necessary funds to keep up their property?

Mr. LORING. Yes.

Commissioner SWEET. Don't you think, Mr. Loring, that the matter of public sentiment in regard to riding on street-cars, good will

toward the companies, is a very important factor with regard to credits and with regard to the solution of this whole question?

Mr. LORING. Very important, indeed, Mr. Sweet; yes.

Commissioner SWEET. Have you not found out, as a trustee, that you can take a horse to water but you can not make him drink; you can have legislation, or your trustees, of whom you are one, can arbitrarily fix your rates of fare without increasing the income; in fact, you have already discovered you can raise it to a point at which you diminish the income, have you not?

Mr. LORING. No; we have never reached that point. Our earnings have always increased with every increase in fares, but the increase is a steadily less proportion of the theoretical increase for each successive raise. We have gained on the 10-cent fare, we have gained 18 to 20 per cent.

Commissioner SWEET. You have gained, say, a little?

Mr. LORING. Yes; it is comparatively little.

Commissioner SWEET. But you have greatly diminished the car riding.

Mr. LORING. Very greatly.

Commissioner SWEET. You have simply from a much smaller number of people got double the amount of money, and that has made a comparatively slight increase in the total revenue?

Mr. LORING. We feel it is a very unfortunate situation that a public utility as it ceases to serve the public, as the part of the public it serves is cut down, its functions are shrunken just that much.

Commissioner SWEET. In order to increase the revenue very little you have decreased the value of the utility to the public a great deal?

Mr. LORING. We, as trustees, have determined on the course of trying to get the income we need from as many people as possible.

Commissioner SWEET. That is it exactly. You want to keep up in value as a public-service utility.

Mr. LORING. That is the course we want to follow; yes.

Commissioner SWEET. So you would not recommend to this commission any adoption of a report or the formulation of conclusions that would produce the revenue necessary for immediate use at the sacrifice of the real purpose for which these organizations exist—that is, service to the public—unless their very existence depends upon doing so. You would deem that a very last resort, would you not?

Mr. LORING. Yes; I would say I would try other things first. Of course, assuming you have got to raise the money to continue the company's credit—if no other way can be found you have got to get your revenue from a few people, but I think it is very unfortunate if that course has to be followed.

Now that, of course, is what is happening in the Boston Elevated situation to a less extent than in ours. They are now getting the money. I understand they are getting now their cost of service out of the public, but of course, they are getting it through a substantial loss in the number of car riders. I think it far better to get it that way than not at all, because they are maintaining good service and serving the people well, and if that is the only way, all right; but I think it would be very much better if the same amount could be obtained in some way from more fare-earning. But that can only be done by experimenting with fares rather than by trying to get out.

Commissioner SWEET. Is it your belief that a great deal of the falling off of patronage is due to ill-will—to a sort of resentment on the part of the public against these corporations in the belief they ought to give them the service at a small price?

Mr. LORING. There is no question about it in my mind. I have seen proof of it again and again and again. When we raised the fare to 10 cents, it resulted in a virtual boycott in some cities, and I understand in one city now—the manager of a factory told me that in that city now the help that rode on the street-cars were jeered by the other people. But, of course, that is wholly lack of information.

Mr. GADSDEN. That will wear off in time; will it not?

Mr. LORING. Well, I presume it will.

Commissioner SWEET. Were you here yesterday morning?

Mr. LORING. No; I was not.

Commissioner SWEET. You did not hear the testimony with regard to the Philadelphia Rapid Transit?

Mr. LORING. No; I did not.

Commissioner SWEET. It appears that—perhaps you are familiar with what has been done there.

Mr. LORING. Yes; I am. I have been following it very closely.

Commissioner SWEET. I presume then you are aware of the fact that the car-riding habit in Philadelphia has been considerably increased by the policy adopted by Mr. Mitten?

Mr. LORING. Yes.

Commissioner SWEET. From your practical experience during the time you have been a trustee of this company and your experience as a banker previous to that, do you think that a process of education of that kind is feasible in Boston, for instance, and other communities, in the cities that you serve?

Mr. LORING. I absolutely think it is; yes.

Commissioner SWEET. In other words, you think this prejudice a part of which, as it has been often said here, may have been well founded, going back to years past, but a great deal of it without reasonable foundation—you think that that may be broken down by taking the public into the confidence of the companies and showing them where their real interests lie; that that prejudice can be broken down and the people will pay what it is actually worth. Is that your judgment now?

Mr. LORING. I think it can be broken down. But remember, Mr. Sweet, it is the growth of years and years.

Commissioner SWEET. Surely.

Mr. LORING. And what takes a long time to grow frequently takes a similarly long time to remove; and I do not believe that the public education is anything that can be accomplished soon enough. I believe it ought to be attempted everywhere, but I do not believe it can be accomplished soon enough to help the situation as it exists to-day.

Now, we hope in a year's time to have a different feeling in every one of our cities. We have a great deal different feeling in some of them already. They are different in character. In one we have a French Canadian population and in another, another kind of population, but they all have to be treated and handled differently, so that it will take a much longer time in some than in others.

Commissioner SWEET. Then, in your case you have the special advantage of being disinterested outsiders to a certain extent.

Mr. LORING. Yes.

Commissioner SWEET. So that the public had no reason for ill feeling against you to start with, such as they had against the officers of an existing company?

Mr. LORING. None at all.

Commissioner SWEET. And yet you have found more or less prejudice that it is necessary to break down before you can really get them interested?

Mr. LORING. Absolutely; yes.

Commissioner SWEET. That makes you feel that it is absolutely hopeless for us to think of accomplishing anything that would be of real service to the companies in this situation that exists to-day in the way of breaking down public prejudice?

Mr. LORING. Oh, well, I think you can help a great deal, Mr. Sweet, but the public has got to be shown. The public does not take arguments very seriously. Now, we hope to get the public with us in our territory by showing them that we really mean it when we say we want to carry as many people as possible. We want the fares to be as low as possible in our territory. Now, if we merely made that statement it would not go very far. They would say, "We have heard a great deal of it in the last 20 years." But the minute we started to experiment with fares and to say to this city, "If you will support this kind of a fare, we will continue it," we aroused a tremendous amount of enthusiasm and a really helpful feeling among the people for the company; so it has got to be by deeds rather than words. But if every company was allowed to handle that matter as it saw fit, Mr. Sweet, I believe they could all accomplish it in just the same way that we are going to attempt to accomplish it.

Commissioner SWEET. Is there not another phase of the matter that is going to have great influence on the public, and that is precisely the consideration that induced your people there, or the people in the vote that you told us about; when the question is brought squarely before a community as to losing a facility of this kind that it has enjoyed for a great many years and that possibility is staring them in the face, don't you think their attitude of mind is quite different toward it than when they have a kind of easy-going feeling that it is always going to be there?

Mr. LORING. It is like a good many things, we do not realize, until we are face to face with the possibility of losing it, what it means to us.

Commissioner SWEET. Or until we actually do lose it, and then we remember what a great blessing it was when it existed.

Mr. LORING. Of course, the fact that we abandoned 65 miles on the first day of September has had a great effect on those who were on the weak lines.

Commissioner SWEET. As you view it, taking the general view of the street-railway situation of the country—don't you think that as things are going, to the loss of credit and with the disposition in every direction and the failure to keep up the physical properties and all that sort of thing, that the street-railroad companies

of many communities are bound to go out of existence entirely unless some radical change is made to build up their credit and enable them to get the money necessary to keep up their properties and continue business? Don't you think that the communities are going to lose that service as things are going?

Mr. LORING. In time, yes. In time, of course, they are going to get poorer and poorer and more unsatisfactory. Of course, to say actually lose the service in a city of any size, we are quite a ways from that at the present time, although we are tending toward it, unquestionably.

Commissioner SWEET. Most of these companies are losing money, are they not, and many of them at a pretty rapid rate?

Mr. LORING. Oh, yes; practically all.

Commissioner SWEET. A great many of them in the hands of receivers?

Mr. LORING. Yes.

Commissioner SWEET. And the receivers are not making ends meet in many cases, are they?

Mr. LORING. No.

Commissioner SWEET. That surely can not go on indefinitely, can it?

Mr. LORING. Surely not.

Commissioner SWEET. Don't you think that a considerable part of the good that can be performed by this commission consists in the statements made by men like you of facts of that kind, through the newspapers and other means of publicity, getting into the minds of the public the exact situation as it stands? Don't you think a good deal of the value consists in that?

Mr. LORING. Absolutely. I do not think the public realizes it.

Commissioner SWEET. That is it, exactly.

Mr. LORING. I told you of that vote on the Quincy line, and how the receiver threatened to abandon that line, and there was then a meeting; and I was told by a man who attended both meetings that instead of the greatest antagonism which existed at the previous meeting, the same people who got up and damned the road up and down at the previous meeting got up and were mighty thankful it was there, and said, What would happen to their property if it had to go out of existence?

I believe the public does not realize it. I think this commission can, and I hope it will, make statements strong enough about the condition of things to bring it sharply to the minds of the people that this is not merely a bugaboo which is being talked about by street-railway people, but that it is the existing fact. I think it is very important.

Commissioner SWEET. If we can perform any valuable function at all, the chief beneficiaries of that will be the general public. Is not that true?

Mr. LORING. Surely; absolutely.

Commissioner MAHON. I wanted to ask you, on the Philadelphia situation: You do not believe that in Philadelphia the relief that is presented in their financial situation is alone due to this welfare talk, do you?

Mr. LORING. How do you mean, Mr. Mahon—the "welfare talk"?

Commissioner MAHON. Mr. Sweet asked you the question about the roads in Philadelphia, and the fact, to my mind, in Philadelphia, is that there has been an abnormal condition, or an extraordinary condition, owing to the war work and other things that has created riding in Philadelphia that is rather abnormal.

Mr. LORING. I consider Philadelphia a very remarkable street-railway city—very remarkable. Just the same, you can go to New Bedford, which I spoke of before, right in our own State. New Bedford is a city next to Fall River—it is only a few miles away—they are both cotton-mill cities. If you go from one to the other you would say they are about the same, but there are differences in traffic conditions in New Bedford which make a 5-cent fare still possible, and we are charging 10 cents in Fall River, and we have found no fare in Fall River at which we can break even; and if a man went and examined casually the two cities he would say there was no difference in them, but there is a great difference in traffic characteristics; and I feel that that is the situation in Philadelphia.

Mr. WARREN. But is it not a fact, if you happen to know, that the New Bedford road itself now has pending a petition before the public service commission for quite a substantial increase in its fare, even by cutting off the 5-cent fare at the center, or something of that sort?

Mr. LORING. Yes; they are before the commission now to cut their main line in two, making, practically, a zone on either side.

The CHAIRMAN. We will stand adjourned now, until 2 o'clock, but, before we leave, you are excused, Mr. Loring.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTERNOON SESSION.

The CHAIRMAN. Mr. Warren has a statement which he wishes to make.

Mr. WARREN. Mr. Chairman, I wanted to read into the record the statutes of Massachusetts which Mr. Loring referred to. I think it may be of value in the record.

The Boston Elevated act is Special Acts of Massachusetts, 1918, chapter 159: "An act to provide for the public operation of the Boston Elevated Railway Co."

The Bay State act is Special Acts of 1918, chapter 188: "An act relative to the Bay Street Railway Co."

The general act to which he referred of service at cost in Massachusetts is General Acts of Massachusetts, 1918, chapter 218: "An act to provide for service at cost of street-railway companies."

The CHAIRMAN. Your next witness, Mr. Ogburn?

Mr. OGBURN. Mr. Beeler. Mr. Morris L. Cooke will follow Mr. Beeler.

STATEMENT OF MR. JOHN A. BEELER.

Mr. BEELER. Mr. Chairman and gentlemen, with your permission I will just skim through this article which I will file with you.

The CHAIRMAN. Very well.

Mr. BEELER. I will read the opening paragraph:

The crisis which we are considering to-day is almost unprecedented in the history of industry. A superessential business—the

electric railway—is literally begging for the right to live. From the popular notion of it as an investor's paradise, where every dollar planted was expected to bring two, it has turned into a slough of despond that is engulfing stocks, notes, and bonds with terrifying impartiality.

The immediate reason is apparent. The margin between income and outgo has been wiped out by the rise in costs of materials, labor, taxes, and interest. The underlying causes are much more difficult to determine, and having been found, the proper remedies must still be applied.

The industry got started wrong. Thirty years ago the street-railway man thought he had discovered a bonanza when he replaced the horse that wore out in four to six years with a motor that was supposed to last forever. Electric motors of 10 horsepower were attached to the cars over night and the horses led out to pasture. But the early motors did not last as long as the horse, and 20, 30, 40, and 50-horsepower motors followed in rapid succession. Many of these changes were capitalized in the hope that the last one would be final and that perfection had at last been attained. Experience, however, showed that tracks and things generally wore out even more rapidly than before. Light cars passed out with the horse, and the demand for weight ran riot. A limit to the length of ride for one fare was scarcely thought of. The amount of taxation that the electric railway was supposed to be able to stand was almost unlimited.

THE INDUSTRY CLASSIFIED.

The electric-railway industry can be divided according to the character of the service into three classes:

1. Rapid-transit lines, including elevated and subway.
2. City and suburban surface car lines, principally in the public streets and highways.
3. Interurban lines, operating partly on highways, but largely on private right of way.

Few roads are included in the first group. They are confined to certain populous districts where large capital expenditures and consequent high investment charges were considered warranted when they were built. They operate at a much lower ratio of expense than the other classes. Such roads constitute a special problem quite different from that of the surface lines.

The second group carries probably four-fifths of all the electric-railway riders. This is the class under consideration at present.

The third class comprises the interurban. It is dependent on a different patronage from the city systems and opens up another set of problems.

PRESENT CONDITIONS.

The situation on the average street railway in the United States to-day is about as follows: The earnings are 40 cents per car-mile or \$3.36 per car hour, the speed being 6.4 miles per hour. The trainmen's wages average 55 cents per hour. The operating ratio is 75 per cent, and \$4 is invested for each dollar's worth of business done. On most of the systems insufficient provision or none at all is made for replacements to plant and equipment due to obsolescence or made necessary by the progress of the art, it being held that current re-

pairs are all required to keep the property in a perpetual 100 per cent operating condition. This is one reason that operating costs are so high to-day. The junk that is in operation in many of our cities ought to be in a museum for antiquities. No wonder there are 60 automobiles for every street-car and millions ride in jitneys.

THE OPERATING STATEMENT.

The condensed operating statement of a company doing annually a million-dollar business under the average conditions cited above, with an allowance of 3 per cent on two-thirds of the investment, to cover depreciation or replacement charges that can not be covered by ordinary repairs, and interest at 6 per cent on the investment, is given in the following:

Gross income	\$1, 000, 000
Operating expenses	750, 000
Earnings from operation	250, 000
Deductions:	
Taxes	\$50, 000
Replacement fund	80, 000
Interest 6 per cent on \$4,000,000	240, 000
	370, 000
Deficit	120, 000

From the foregoing it is seen that the average company is to-day falling short by 12 per cent of earning its way. There are but two ways of overcoming the deficit: The first, to increase the receipts; the second, to reduce the expenditures. The alluring method is to raise the flat fare to 6, 7, 8, or 10 cents with or without a transfer charge. This procedure often proves like chasing the pot of gold at the end of the rainbow.

TAXATION.

The subject of taxation presents a field where the authorities can relieve the situation materially. There seems to be no good reason why a railway should pay more or less than does any other business on its physical property. Special franchise or license taxes should be done away with, as in many cases to-day the franchise is a liability and not an asset. Paving taxes should be abrogated generally. Then the average rate of taxation would fall from 5 per cent of the gross income to about 2 per cent, reducing the expenditures of a million-dollar company by \$30,000. To make both ends meet this company would have to save the remaining \$90,000 of its deficit from operating costs. The condensed statement would then be as follows:

Gross income	\$1, 000, 000
Operating expenses	660, 000
Earnings from operation	340, 000
Deductions:	
Taxes	\$20, 000
Replacements	80, 000
Interest, 6 per cent on \$4,000,000	240, 000
	340, 000
Surplus	0

With operations reduced to 66 per cent and taxes lowered to an average of 2 per cent, the concern would be enabled to pay its expenses and charges.

Now, that is the average situation, 75 per cent operating ratio, so it would take a 9 per cent reduction, bringing it down to 60, in order to make an average street railway pay with an investment of \$4 per \$1 of business, which is very nearly the average of electric railways. Of course, electric high-speed lines, subways and elevateds, have a much higher investment; but we are not discussing that in this paper, because that presents a special problem.

Mr. WARREN. Before you leave those figures—I did not catch the depreciation figure on your million-dollar operation.

Mr. BEELER. I said it took a ratio of 3 per cent for depreciation on the depreciated property and took two-thirds of the investment value as the value of the depreciable value, which would really be 2 per cent on the investment value.

Mr. WARREN. And what would that figure on your hypothetical million dollars of income there?

Mr. BEELER. With \$4 invested, that would figure \$80,000. That would figure on the company earning \$1,000,000 with \$4,000,000 invested; 2 per cent on that would be \$80,000 per annum.

Mr. WARREN. Eight per cent of the gross?

Mr. BEELER. Eight per cent of the gross.

Mr. JACKSON. You use the constant 4 instead of 5?

Mr. BEELER. I do in this case, because I am discussing street railways. Five would be right if we were discussing the average of everything, elevated and subways included.

Commissioner GADSDEN. We have been using five, and I wondered—

Mr. BEELER. That is right. If we were considering elevateds, subways, and all; but as a matter of fact, elevateds and subways will run from 7 to 10 or more per dollar of business. They have the advantage of a lower operating ratio and can pay a higher charge on overhead on that account. I think the average operating ratio on a rapid-transit line will be 20 cents on the dollar less than on the average surface line, which would enable them to pay interest on over \$7 in that way instead of \$4.

OPERATION ECONOMIES.

The question of operating economies thus becomes paramount. They are many, and most of them can be applied to every company, regardless of the fetish of local conditions.

SCHEDULES.

The most important items in any company's operations are:

(1) Frequency, (2) regularity, (3) speed. With these items right, almost any company will succeed. They have such a far-reaching effect on the operations that many an otherwise good concern has gone on the rocks on account of poor schedules.

What an increase of 1 mile per hour will do in the operations of the average company is, perhaps, the most potent illustration that can be had. A company with an average schedule speed of 8.4 miles

per hour, which is practically the average of street railways in the United States, as near as can be obtained, is represented by A, while B has been speeded up to 9.4 miles per hour. Note well the difference:

	A.	B.
Speed, miles per hour.....	8.4	9.4
Earnings per car-mile.....	\$0.40	\$0.40
Earnings per car-hour.....	\$3.36	\$3.76
Expenses per car-hour.....	\$2.52	\$2.52
Operating ratio.....per cent..	75	67

With the same identical car-mile earnings this increase in speed alone will come within one point of making an average company self-sustaining, as it has been shown already that with an operating ratio of 66 per cent sufficient will remain to provide proper replacement charges and return 6 per cent on the investment.

The acceleration and braking should be increased. The average road will show about 1.5 miles per hour per second, while 2.5 will provide much speedier operation, increasing schedules, say, 10 per cent. The duration of stops will also automatically be shortened as passengers get used to good operation. They invariably prefer it to the slow, halting, undecided movements now prevalent on so many roads.

The importance and advantages of higher schedule speeds for electric railways has been set forth fully in an article by the writer in the issue of the Electric Railway Journal for September 27, 1919.

LAY-OVERS.

The elimination of excessive lay-overs is most important. The ratio of lay-over time to actual running time varies from 2 to 25 per cent. Long lay-overs are given frequently as a concession to labor when, if the nature of the resultant trouble were fully understood, labor would not want them.

As an example, apply the extremes to two systems each earning 40 cents per car-mile and making a running speed not including lay-overs of 9.33 miles per hour. The line with the 2 per cent lay-over will earn \$3.67 per car-hour, while that with the 25 per cent lay-over will bring in but \$2.79. After paying the trainmen at the rate of \$1.10 per car-hour, there remain, respectively, \$2.57 and \$1.69. The long lay-over is a great handicap. The other line has 50 per cent more of its receipts left after paying wages. The only feature that is swift about a road with long lay-overs is the rapidity with which it approaches the receiver.

THE ROUTING.

It is of the utmost importance that the lines provide the shortest, quickest, and most convenient routes. Many cities to-day maintain routes and service designed for traffic conditions of a generation ago. This subject deserves the closest scrutiny. Rerouting coming under my observation has worked wonders in bettering service for the public and, at the same time, saving money for the company.

Through routing to eliminate overlapping service frequently proves a tremendous force in reducing both expense and congestion, as both are synonymous. Short-lining and turn-back service will frequently enable a company to accommodate twice as many people during the rush as where all cars are run through irrespective of the length of line.

ABANDONMENT OF SERVICE.

Some nonessential, nonpayment lines, especially those closely paralleled by other service, may be abandoned profitably. Frequently, however, such lines can be made to carry their operating expenses when run as shuttle lines or with one-man cars. After a line has been built and equipped it should not be abandoned except when it is possible to earn operating expenses alone, as the interest on the investment will be lost in abandonment anyway.

EQUIPMENT.

Because adequate allowances for replacement were not provided from earnings, many electric railways operate to-day with dingy, dilapidated equipment that actually repels custom. These cars are usually much heavier than necessary. They pound the track and paving to pieces, while their excessive demands for power eat up the coal pile. In operating such cars an indifferent motorman can waste readily several dollars a day for power alone. Yet only 5 per cent or less of the cars in the United States are equipped with devices to check up the motorman's skill and assist him in becoming efficient. The older, heavier cars are costly to run and to maintain. They must be replaced by far lighter, faster, and more accessible cars with full automatic equipment before the full degree of success is had.

Standardization of equipment and a complete change in manufacturing methods must come. Cars must be turned out ready to run like automobiles, in large quantities, and at a fraction of the present costs. They must be light and attractive. Cross seats should always be employed, as comfort is a prime requisite; and to sit with one's feet in the passageway with nothing to look at but a jam of passengers gives the patron a bad impression of the management. I think one of the most important things is attractive, economical rolling stock. I think that one of the vital troubles to-day with a great many of the companies, is in the rolling stock—ample provision has not been made by most of the companies. It should be kept in good repair, but when it comes to discarding the property it is like a modern merchant: When he wants to put in new fixtures he has to write off the old. And if the industry is to remain prosperous it must recognize that fact and provide attractive equipment and write it off as it goes along.

Two or three car types will be sufficient to meet the varying conditions throughout the country. Car-trust certificates will then be attractive to the investor, especially when he knows that the car has full value on other lines.

When older rolling stock is in use it should be segregated by types and the service made as nearly uniform by lines or districts served as possible, so that the cars will not run hit-or-miss in heterogeneous bunches. The motor characteristics and speed should be classified

with care and cars used on lines where they best fit the schedule requirements.

I have in mind an actual illustration on a line that was about 10 miles long where a dozen different types of equipment were used. Some of the cars on that line had a maximum speed of considerably over 30 miles an hour—33 or 35 miles an hour; others had a speed of 18 miles; and they were all making the full length of the line. So you can imagine what kind of schedule economy you got on a line of that kind. They invariably ran in bunches with the slower car leading the procession.

Often a change in the gear ratio will make faster schedules possible. All equipment should be kept clean and well painted, brilliantly lighted, and wear an inviting look.

The use of specially constructed lightweight trailer cars in rush hours and other periods of heavy traffic has proved of immense value in augmenting the service with a minimum of expense. Such cars will aid to give more service at less cost. The light weight saves power and wear and tear.

POWER ECONOMIES.

If we go back to the power stations, frequently it is found that they are generating power at a higher cost than if the electricity for a locality were obtained from a single control generating plant that provides the whole community with power and light as well as the railway. But assuming that the railway is generating power, this branch of the business presents a fertile field for economies, among which may be mentioned the following:

Consolidation of power plants, shutting down less efficient ones when demand permits.

Economies in central-station generation, including both the steam and electrical plant, handling of coal and ashes, and the many details that go with a generating plant.

Purchase of part of the power if necessary.

Reduction of distribution losses, proper feeder system, track bonding and negative return, automatic substations, etc.

Thermostat regulation to cut out heat automatically in crowded and overwarmed cars.

Elimination of the use of power as far as possible in shops and elsewhere during the transportation peak. Keep work and freight cars off the line at such times.

A great field for saving is the conservation of power at the car itself. The installation of an efficient checking device will reduce excessive power consumption to a minimum. To my personal knowledge, as high a saving as 25 per cent of the power used to propel the cars was effected by such a means. As the combined fuel bill of the electric railways is not far from \$50,000,000 annually, a 20 per cent saving, which could be obtained, would release a large amount of fuel which could be diverted to other essential uses.

MISCELLANEOUS SAVINGS.

In the case of the track, war conditions have shown the need of standardization, and how little excuse there is for demanding special rail sections that add many dollars to every ton bought. The fault

may sometimes be charged to the city engineer, but it is just as likely to be due to the way the company engineer's theories are aided and abetted by the utterly needless increase in the weight of cars.

Electric switches automatically thrown by manipulation of the motorman's controller save time and money. Automatic signals on single track lines are vastly more efficient than the hand-operated type so frequently used on many nonprogressive lines.

The location of car stops is of prime importance. They should be so placed that a standing car will not interfere with other cars or general street traffic, and where lines branch off they should be placed so as not to block the main line. The exact location of each stopping place should always be indicated plainly by a sign, so that passengers will not delay the car movement unnecessarily by walking to the car after it has stopped. A walk of a car length adds in excess of eight seconds to the regular stopping time, reducing the car's earnings proportionately.

Considerable might be said on the methods of organization, telephone dispatching, the operation and location of division headquarters, methods of accounting, fare collection, and registration, use and abuse of transfers, prepayment areas, reduction of nonproductive miles to and from car houses, advantages of good track, spiraled curves, smooth special work, effects of corrugation, bad joints, poor drainage, excessive use of sand, methods of greasing curves, accident prevention, and scores of other equally important items all having a direct influence on the operations and expenses. For the purpose of this paper it is unnecessary to do more than enumerate them.

COOPERATION BY THE PUBLIC.

Staggering of the hours of business could be carried out to a larger extent than now done, so as to enable the rush-hour traffic to be spread over a longer period and with a minimum of equipment. This would materially benefit the service and eliminate a great deal of the overcrowding of cars, which is not only a cause of popular dissatisfaction, but is always a menace to the health of the community.

Another kind of teamwork is the application of the skip-stop by which the practice of stopping at every street intersection is abandoned in favor of spacing the stops farther apart and in accordance with traffic conditions. Instead of imposing a hardship on the public, the decrease in the number of stops insures a quicker journey and more comfortable riding. At the same time the reduction in starts and stops leads to a considerable saving in power. It is significant that one of the first steps of the Fuel Administration was to urge electric railways to install the skip-stop wherever practicable.

COOPERATION BY THE AUTHORITIES.

First and by far the most important step is to secure the cooperation of the local authorities in all matters pertaining to faster operation on the streets, not by increasing the maximum speed, but by reducing delays and removing causes of congestion along the tracks.

Loading platforms should be placed at all heavy loading and unloading points where street width permits. They concentrate pas-

sengers at the proper point ready for quick loading, reduce the heights of the step into the car, save time, provide a safe, comfortable place for the patrons to stand, prevent accidents, and permit the general street traffic to proceed without delay, thus mightily relieving congestion. Few people would guess that the humble loading platform has a direct bearing on the rate of fare, but by enabling the car to make better time, operating expenses are kept down. Where raised platforms are impossible, the next best substitute is the so-called marked safety zone; but for efficiency, safety, and comfort it does not begin to compare with the loading platform.

Traffic officers should always give precedence to the street-cars over all other classes of traffic, as they carry 20 to 1 by all other means. By traffic, I do not mean fire departments or police patrols or ambulances, but of general traffic.

The police should assist in keeping tracks clear from trucks and other vehicles. The left-hand turn for all vehicles should be prohibited at congested intersections, such as Fifteenth Street and New York Avenue, in Washington, or Forty-second Street and Fifth Avenue, in New York. The rule of one-way traffic on narrow and congested streets should be enforced.

Parking of automobiles should be regulated so that traffic will not be forced on the car tracks or otherwise interfere with the free operation of the street-cars in the congested districts.

Double berthing of street-cars should be the rule in all congested locations so as to save unnecessary stops.

The abolition of all steam-railroad grade crossings is also an item of great importance to speed and safety.

Jitneys should be regulated and their operating requirements made no less onerous than those imposed on the street-cars.

These important things, which are of great financial benefit to the electric railways and of equal value to the public, can be done without spending a dollar if there is cooperation between the railways, the local regulating bodies, and the public. They will insure higher schedule speed with consequent increase in street capacity for a given number of cars, thus affording the public an increase in service with no additional expense to the electric railway. In fact, better traffic regulations will tend to reduce operating expenses despite increases in service.

The electric railways were for so many years unaccustomed to regulation that they came to respect much too slowly the value of cooperation with State and municipal regulatory bodies. To-day, when the electric railway needs all the cooperation it can get, it finds that it has been a demoralizer of public confidence in these very commissions and local authorities whose help would now be so valuable.

I think, if the average railway endeavored to raise its fare without the authority of a commission or regulatory body, that the effects to the railway would be disastrous; and I think that is now generally recognized by the railways themselves.

INCREASING THE EARNINGS.

I think this is a very important thing which should go with the economies, because it helps to bring them about. Attention will now be turned to methods of increasing the gross earnings, which tend to

reduce the operating ration. This subject should have first consideration always. Every route, every department, every branch and detail of the business should be studied with this in view.

The street railway is a retailer of transportation. A successful retailer drills his employees to be courteous and polite. He studies his customers, how to please them and add to their comfort, thus increasing his sales. Where are these elements so scarce as in the street-railway industry? Let the operating force of the average street railway take charge of any prosperous department store and accord the same arrogant, uncivil treatment to its patrons that car riders are so used to, and that store will soon have urgent need of the sheriff. It may be that this feature has no connection with the fact that so many traction lines are in receivers' hands. But, do you know of any single instance, however, where the management of a street railway has carefully studied its customers' wants in an effort to furnish good service with attractive and comfortable cars, where drilled, disciplined, and affable employees have made riding a pleasure, that is to-day in a receiver's hands?

There may be such a case, but I venture that such a company will not be long in arranging with the local authorities some satisfactory method of increasing its receipts.

ENCOURAGING BUSINESS.

In the past it has been largely considered that people ride from necessity only as in going to and from work. Pleasure riding was supposed to consist principally in taking long trips. Curiously enough, almost the only attempt to induce people to ride aside from strictly necessary purposes was made in the establishment of parks at considerable distances from the homes of the riders. This meant that a large investment was carried for the sake of hauling people a maximum distance perhaps 90 days in the year.

Until recently few have believed that the way to create traffic is to give so frequent a headway with such attractive cars that people would voluntarily quit walking except for a very short distance. Experience in many towns, especially with the automatic safety car has demonstrated conclusively that there is such a thing as a "riding habit." People will and do ride for short distances that are profitable to the railway many more times a day than was considered possible. In other words, the electric railway is coming around to the standpoint adopted by some of the more enterprising gas and electric companies a decade ago, when they discovered that there are many more ways for selling their products than following the take-it-or-leave-it plan.

One of the most striking examples of this is found in one of the largest cities in America, where the management has been able to retain the 5-cent fare by improving and popularizing the service. Their motto is: "High fares make riders walk; low fares make walkers ride; more fares make low fares."

BETTER HEADWAY PAYS.

Often a line is suffering from too infrequent a headway. Patrons walk who might be induced to ride. I have in mind a line that made the following record as the service was gradually increased. This

was my own personal experience and was brought about in a period of a year:

Headway:	Earnings per car per day.
8 minutes-----	\$21
5 minutes-----	25
4 minutes-----	29
3 minutes-----	35
2½ minutes-----	40

Of course it does not follow that that is applicable to all lines. This line was developed in less than one year from a nonpaying line to one of the best on the system simply by giving more service.

Where the headway is comparatively infrequent it should always be some even part of an hour, as 30, 20, 15, or 10 minutes, and not 42, 28, 19, 13, or 9 minutes, as is often the case. The rider readily learns when to expect a car under one plan and can tell nothing about it under the other.

RELATIONS BETWEEN EMPLOYEES AND PUBLIC.

Perhaps the most important feature in selling transportation is the human factor of polite employees on the cars. All employees, especially the trainmen and supervisory transportation force, should be trained in the elements of successful salesmanship, courtesy, and politeness. The long face and the gruff manner must be permanently interned. Publicity, smiles, and the same cheerful "thank you" that is customary in a well-regulated store are bound to put the electric railway on more nearly the same plane of good will as any other business in a community.

Each employee should be a publicity agent for the system. Delays due to traffic and other causes beyond the control of the company can be explained to complaining patrons in a few courteous words by the men and sympathy gained for the company and its employees.

Some companies operate safety cars, each carrying a holder with a card giving the name of the operator on duty. Thus he is given an identity that means something to the patron and much to the men and more to the service.

Platform labor alone amounts to 50 per cent or more of all the operating costs. Wages are now much higher and should attract intelligent, efficient help. Both motormen and conductors should be of the courteous sales type of employee rather than the type found driving a truck or found in other unskilled labor.

Intensive, systematic instruction must supplant the slipshod and haphazard methods now employed, and will work wonders with raw material. If wages are to remain at a high level, the cost of the turnover should be reduced enormously; because with the higher rate of pay, employees will stay, and the company can well afford to spend a considerable amount on the instruction of each individual.

So much has been said and written regarding this type of car that a description would be superfluous here. About 1,100 are now in use in the United States. Few managements to-day realize the full significance of this car and the tremendous possibilities that lie before it. Probably the best way to give an idea of its worth is to

apply the concrete illustration of what should be expected if the average company mentioned in the foregoing part of this paper decided to adopt it in lieu of the present equipment of two-man cars.

Before entering the detailed discussion, the following facts must be borne in mind:

1. The safety car is capable of making nearly 20 per cent better schedule speed without being capable of as high a maximum speed as the average car now in use.

2. It was designed primarily to furnish service on a more frequent headway than that now given with the big two-man cars, and not to reduce the number of trainmen employed.

Lines now operating on a 30-minute headway should be put on a 15 or a 10. Those now having a 10 should be placed on a 5 or 3, and so on. The car was designed to encourage and develop the riding habit. Wherever it has been so used it has demonstrated that it will do this. An increase of 100 per cent in the number of cars per hour brings in a 50 per cent increase in business, a 50 per cent increase in cars, a 25 per cent gain in receipts, and so on.

Now, the average company doing a million dollars' worth of business annually will require available for daily service approximately 75 cars, including extra for shops and emergency. To substitute safety cars, 135 would give double service on the basis of a 10 per cent increase in schedules (instead of the maximum of 20 per cent obtainable).

At the present time this number of cars would cost fully equipped about \$6,000 each, or a total of \$810,000. The old cars should be sold for whatever they will bring. Meantime the new equipment must be paid for and the increased interest provided. Increased earnings occasioned by the double service should be at least 50 per cent. To be conservative, however, an increase of but 35 per cent is assumed. Compare this operating statement with that of the average company under old methods of operation:

Gross income		\$1,333,000
Operating expenses	\$750,000	
Add 10 per cent purchase price of new cars	81,000	
		<u>831,000</u>
Earnings from operation		502,000
Deductions:		
Taxes (adjusted)	\$20,000	
Replacement fund	80,000	
Interest on new cars	27,000	
Interest, 6 per. cent on \$4,000,000	240,000	
		<u>367,000</u>
Surplus		135,000

In going into the details, it is found that the miles run by the company have increased from two and one-half millions to five millions. The earnings per car-mile have not gone down to half, but are decreased from 40 cents to 26.6 cents. The car-hour earnings have been reduced only from \$3.36 to \$2.46, and the operating ratio has gone from 75 per cent down to 63 per cent. This is in spite of the change from the attitude that cars are going to last indefinitely to using them intensively and obtaining the full value of them in 10 years, after

which they can be replaced, as you would an automobile, with the latest model.

With the one-man safety car alone an average company now operating with a deficit can be made to carry all its present burdens, pay out for the new cars on a basis of 10-year life, and earn a comfortable surplus which can be used to (1) reduce the fares; (2) still further improve the service.

I believe the safety car has a much wider range of applicability than has yet been attempted. Even large companies can undoubtedly use many of them to advantage.

If, after everything has been done to increase business, effect operating economies, and lower taxes to a normal basis a deficit still remains after providing for the necessary and proper fixed charges a raise in the rates of fare should be granted. There are a number of ways to do this, as follows: (1) A charge for transfers; (2) an increase in the flat rate; (3) zone fares, or fares based on distance.

A 1-cent charge for transfers will usually yield from 3 to 5 per cent additional revenue. An increase in the flat rate of fare can scarcely be called a success as yet. An increase of 1 cent usually leads to 2 or 3, and as the flat rate goes up, the number of riders decreases correspondingly. A number of cities have gone to 10 cents with disappointing results financially. High fares encourage walking, and the short-haul patron disappears. He is the only profitable customer the street railway has had in years. Lose him and the entire burden falls on the shoulders of the long-haul patron, who must thereafter produce the entire revenue. One who lives beyond the walking limits suffers most, for he must ride while the others can walk.

As patronage diminishes, the company naturally operate fewer cars and the space between them becomes greater. The service consequently deteriorates and the whole city suffers, but no one suffers as much as those who live far out. As the patronage falls off the expenses must be shared by fewer and the rates of fares keep going higher. Outside property values will undoubtedly feel the most disastrous effects.

Provided the fare has to be raised it should be done so as to retain and encourage the short-haul rider, develop community riding, and increase the receipts. Experience has shown that a high flat rate does not accomplish this. The successful merchant gives an apt illustration when with rising costs he reduces the contents of the package and keeps the price the same or even lowers it.

AUTOMOBILE AND BUS COMPETITION.

At present a great deal of publicity is being given to the possibilities of motor buses to replace nonpaying street-car lines, and it has even been predicted that the street-railway industry is doomed. These predictions are based largely on the operations of jitney lines, where the buses are running in competition with the street-cars and skimming off the best of the short-haul business, or where operations of the buses are made possible by higher fares such as on the Fifth Avenue Coach Co. of New York City, where a 10-cent fare has been charged for years.

The bus, with its limited carrying capacity, requires a higher ratio of man power per passenger carried. The greater number of units increases the congestion and street accidents. The cost of fuel and repairs is much higher per car-mile. The bus has higher depreciation. The street-car wears out its own roadway of steel rails while the bus wears out the paving laid at great expense by the public. Where any considerable volume of traffic exists, motor-bus service, considering everything, costs more than good street-car transportation should. There are many places, however, where the bus can be employed to the great advantage of both public and company. There are other places where the bus should not be allowed. Unquestionably, however, the companies should study this with a view of coordinating bus service with the car service, where use is warranted as a part of the general transportation scheme.

FUTURE OF ELECTRIC TRACTION.

To-day, in spite of the fact that there are upward of 6,000,000 passenger automobiles in operation in the United States, the demand for rapid, safe transportation was never so great, nor were there so many people to be moved. Good street-railway transportation is not only desirable but is indispensable. In fact, on the quality of the service rendered by the local traction systems depends largely the degree of prosperity, importance, and growth of the locality served.

In order that the street-railway industry be placed on a firm financial footing and be enabled to grow, it must be made to pay. As a whole, it is not doing so to-day. Therefore either the outgo must be reduced or the income increased, or both. To accomplish this better methods of financing and operating must be employed. Managements must employ all the arts of successful salesmanship combined with economies.

One of the fundamentals that must be recognized is that repairs alone, no matter how efficiently done, will not make antiquated equipment attractive or efficient. Replacement costs covering obsolescence of rolling stock and plant must be provided the same as any other operating charge.

Cooperation of the public and authorities is important, not only to the company but much more so to the people and the community served. High-class, efficient urban transportation makes for business prosperity.

RECAPITULATION.

To enable the street railways to get out of the serious situation in which they now are, the following can be done:

Reduce taxation to place the street railways on a par with other industries.

Employ operating economies, such as: Better and faster schedules, reduction of lay-overs, improvement of routing, abandonment of nonessential service, standardization of equipment, saving of power, eliminate waste.

Obtain the cooperation of the authorities and the public in the following: Installation of loading platforms, cooperation of the police, regulation of street traffic, control of parking, elimination of

steam-railroad grade crossings, regulation of jitney and the competition, staggered hours of business, skip stops.

Employ methods to increase the gross receipts, as: Encourage short-haul riding, shorten headways, replace insolence and inattention with courtesy, drill employees in principles of salesmanship, reroute to increase business, use the safety car and more attractive cars generally.

A raise in fare by itself, without employing methods to induce and encourage profitable riding or without employing more efficient methods of operation, will fail.

Automobile and bus transportation is far less economical than efficient electric-railway service. By the adoption of the remedies proposed, good street-car transportation will be retained and the industry made self-supporting.

The CHAIRMAN. Have you any general comment that you wish to submit, Mr. Beeler, in addition to this statement?

Mr. BEELER. I think not.

The CHAIRMAN. What, in your judgment, is the trouble with the street-car industry, speaking of it as a whole?

Mr. BEELER. Well, it is a complication of things, Mr. Chairman. The earnings in the past have not been sufficient to enable the average company to make provision for replacement of plant and equipment. That is one fundamental principle that has been wrong in the past. That principle has not been fully realized, and until it is, until we get the street-car industry more fully developed on more progressive lines, like the automobile, the street car industry, to my mind, will suffer.

You would not think of running an automobile that is 10 years old. The average automobile does not last over 4 or 5 years. The average bus in jitney service has a limit of about 4 years, or 25 per cent depreciation per annum.

The street cars dodged the issue in hopes that business would be better or that something else would turn up, and we are running on lines to-day equipment that is little better than horse car equipment on many lines, simply with motors in place of horses, simply for the reason that the companies did not save enough out of earnings to replace that equipment.

The CHAIRMAN. Prior to the war period were the companies as a whole making sufficient revenue out of the 5-cent fare to maintain a proper depreciation charge or account?

Mr. BEELER. There were very few of them, to my notion, that were maintaining sufficient depreciation charges.

The CHAIRMAN. Was that due to reluctance or to a shortage in revenue?

Mr. BEELER. Principally due to a shortage in revenue, and the more unattractive the service becomes the shorter the revenue becomes, and there we have a vicious circle. We discourage business and the fare is increased, the flat rate of fare, and the walkers are encouraged, and when patrons once start to walk the walking habit is developed; it is hard to get them back, especially to ride on dingy and ill-kept, out-of-date equipment.

The CHAIRMAN. Then, you feel that in the future the companies must maintain a greater depreciation charge?

Mr. BEELER. Repairs will take care of a certain amount of depreciation. For instance; repairs can be made to take care of the tracks absolutely. You can reconstruct so many miles of track per annum and charge it to repairs. You know your average life of rails on one system is 18 years and on another system is 20 years and on another system it is 25 years. That replacement can be charged right direct to repairs, when the tracks wear out. But to replace an obsolete type of car means that you have to buy a new car, the same as you have to buy a new automobile.

You can paint this car and keep it up and keep it attractive as long as you have to use it, but if it is heavy and uneconomical, equipped with wasteful motors, and has narrow doors, so that entrance and egress are slowed down and altogether out of date, there is only one thing to do, and that is to buy a new model, and that takes fresh capital.

The safety cars are the only standard type of cars that I know of that can be bought on a car trust. There is no reason, however, why other cars should not be bought on a car trust, if they were standardized, and that would enable a company, by more efficient operation and more revenue, to pay for new equipment out of the earnings, out of the increased earnings or savings in operation.

To my notion, I believe that the minimum fares should be retained at 5 cents, and shorten the haul, if necessary, but make the service attractive, gather up the people off the sidewalks and haul them.

The equipment to-day is running idle, running less than one-half filled 12 hours a day on many lines.

Now, if we can pick up these short-haul riders and encourage them and get their business, practically no increase of operating expenses will result, and we get the benefit of the increased revenue.

The CHAIRMAN. Is your idea that the companies have not been taking proper steps to develop this short-haul traffic?

Mr. BEELER. I am of the opinion that sufficient attention has not been paid to that and that more attention should be paid to it.

The CHAIRMAN. Can you develop that short-haul traffic on a 5-cent fare?

Mr. BEELER. It takes more than fare to develop traffic. It takes convenient, attractive rolling stock.

The CHAIRMAN. Assuming that you have that, can you develop the traffic on a 5-cent fare?

Mr. BEELER. You certainly can. It takes frequency of headway and regularity of service. Some of the companies will tell you that they are operating 12 cars an hour. That would average up to be, say, 5-minute service; but in actual practice you will find those cars are going along in bunches of 3 every 15 minutes.

Commissioner GADSDEN. Right there, is not a lot of that occasioned by congestion in the streets, beyond the control of the railway company?

Mr. BEELER. Some of it is. A great deal of it is occasioned by congestion.

Commissioner GADSDEN. That is where the public have to help?

Mr. BEELER. The cooperation of the authorities should come in to assist in keeping the tracks clear. But there is considerable of that in the schedule making itself. No attention has been paid to the

leaving time out of the end of the line than the fitting of the schedules into the regularity on the main arteries so as to bring about a regularity of spacing on the main arteries. When they get to the main arteries, oftentimes the schedules will bunch them, especially if you have one line on a 17-minute headway and another line on a 15-minute headway and another line on a 13-minute headway—those lines will run hit or miss all day. They will be more or less in bunches.

I am a great believer in even schedules. I think that a 20-minute headway is better than an 18-minute headway. I think a 15-minute headway is better than a 13-minute headway for the patron, because he then knows when to catch his car; but if it is every 13 minutes, he just simply takes a chance on it, and he invariably feels that he has just missed a car whether he has or not.

The CHAIRMAN. You have outlined quite a comprehensive list of the improvements in service and economies in operation. If the companies applied themselves diligently to the reforms that you have suggested, do you believe that we might look for a reduction in fares as well as an increase in the riding habit?

Mr. BEELER. Unquestionably you can lower operating expenses by these means of economies; and I think to increase riding you have got to stimulate and develop the principles of salesmanship, not only in the way of improved equipment but also in the training of the men in the principles of salesmanship. I think very largely the men reflect the attitude of the management toward the public.

The CHAIRMAN. There has been a good deal said here about credit, and you have also touched on that. Do you believe that it would be possible to inaugurate a system by which the benefited property and the public generally should pay for new construction of street-car properties or for extensions?

Mr. BEELER. There is no doubt but what property values have been immensely increased by the construction and operation of street railways, and the property owner has been almost the sole beneficiary, except that the community is benefited by increased taxes on account of the rise in value of the property served.

That is a very large question, as to who should pay for extensions and improvements. A great many lines have been built with subsidies, where in the past they were subsidized by property owners, in order to build out in this district; and generally the property owners put the price of the property up so high that the development was so slow that the railway had been much better off had it never built the line. I know of a great many instances of that kind myself.

The CHAIRMAN. You are from Boston, I understand?

Mr. BEELER. My home has been the West for 30 years. I have been in Boston considerably for the last two years or three years.

The CHAIRMAN. You are familiar with the cost-of-service plan?

Mr. BEELER. I am more or less familiar with the plan; yes.

The CHAIRMAN. Do you believe that affords a solution of the street-car question?

Mr. BEELER. I think as a whole it is a good plan.

The CHAIRMAN. Does it afford a solution?

Mr. BEELER. I think it may.

The CHAIRMAN. Under what conditions?

Mr. BEELER. I think it is largely a question of management.

The CHAIRMAN. Has it been tried out long enough in this country to warrant the assertion that it will solve the street-car problem?

Mr. BEELER. No; I could not say that it had been. I do not believe it has.

I think that the whole street-railway situation, whether it is municipal ownership or private ownership or State ownership, it seems to me that it is right now a question of management and financing.

If municipal ownership will finance a line and will provide equally competent management, then municipal ownership would be a good thing. On the other hand, if private capital and private ownership can continue to finance and manage the line that would be the proper thing. It seems to me that it is largely a question of management and cooperation with the public.

In order for any management to be successful they have got to employ all of these operating economies and the principles of salesmanship and recognize the fact that cars wear out and that people will not ride in them—that they want a change. I think, regardless of whether the State owns it or the municipality or the private company, that these fundamental principles have got to be recognized and provided for.

The CHAIRMAN. Have you reached any conclusion as to whether municipal ownership will give a greater guaranty of good service and a larger facility to investment than private ownership and operation?

Mr. BEELER. I think that is simply a question of individual opinion. It might, under certain circumstances. Municipal ownership or State ownership would have this advantage: The money for financing could be obtained at a lower rate of interest, and could be readily obtained. To my mind, that is the only advantage that I can see for municipal ownership or State ownership.

Commissioner GADSDEN. Is not that the greatest question before the street railroads to-day—getting new money?

Mr. BEELER. It is; but I think the greatest question before us to-day is a question of policy. If they are to continue to operate on the same policy that they have in the past, if they get the new money, they will be in the same shape again in a few years; and the successful companies to-day are those that have been rehabilitated in the past few years. They have had new plants, new equipment, and are operating successfully, most of these companies, on low fares—the 5-cent fare. Some of those companies may have provided for this; they have provided for the new capital in different ways. However, in whatever manner they have provided for it, they are operating more economically to-day than the companies that have not been rehabilitated.

So that it seems to me that a comprehensive plan providing for rehabilitation of the properties, other than making of repairs must be adopted before the street-railway industry will be financially sound.

The CHAIRMAN. Assuming that the public can purchase capital more cheaply than the private company, do you believe that the dif-

ference is substantial enough to really affect the substantial operation of the industry?

Mr. BEELER. Given the same efficient management, the saving in interest would be very substantial. With an average of \$4 invested per \$1 of business—that is the trouble with the street-car business; it requires such a high investment to do business—the average company—surface-street-car company—with \$4 invested must provide, at 6 per cent, 24 cents out of every dollar to pay its interest at 6 per cent. Now, if the municipality could borrow that at 4 per cent, there would be 16 cents against 24 cents, a saving of 8 cents on every dollar, which would make a tremendous difference in the operating ratio; but it would not take very long for an inefficient management that was careless, or that was favoring certain sections of the city, to throw away that 8 cents on each dollar.

The CHAIRMAN. Which do you think is the most effective system of regulation: The cost-of-service plan, or to have the properties fairly valued by an appropriate tribunal with adequate powers given to a State commission to regulate the rates and the service and the accounting, leaving the requisite local control to the municipalities?

Mr. BEELER. I do not believe there would be any difference.

The CHAIRMAN. You think it all comes back again to the question of management?

Mr. BEELER. I think it is 99 per cent a question of management and financing.

Commissioner MAHON. What companies do you refer to that are successfully operating now at 5 cents?

Mr. BEELER. There is one right here in this city, the Capital Traction Co.; Philadelphia has another; Cleveland is another. This Capital Traction Co. right here in Washington I consider one of the most successfully managed and operated companies in the United States.

Philadelphia is a much larger proposition: They have a great many long lines, and they have a great many poorly paying lines in Philadelphia. On the other hand, they have a great many tremendously good lines, and they are doing as well to-day, if not better than ever before, I understand, with the straight 5-cent fare.

Cleveland has the 5-cent fare, and they are doing very well. They are doing much better than any company I can think of that is operating on a higher fare.

I do not want to give the impression that I think the 5-cent fare should be the limit of the fare. I think that the companies would do well if they made their minimum fare 5 cents anywhere on the system; have your minimum fare 5 cents and an extra charge for these long hauls, over and above a certain limit.

Mr. WARREN. You would shorten the zone?

Mr. BEELER. I would shorten the haul for 5 cents; but I would keep the minimum fare at 5 cents. It is a piece of money that we all have in our pockets—everybody has; you do not have to have any tickets or special apparatus or paraphernalia, and we are used to it.

Commissioner GADSDEN. That is hardly practicable in a city of less than 100,000, is it? The distance is too small.

Mr. BEELER. Well, you mean the zone system?

Commissioner GADSDEN. I mean to shorten the zone.

Mr. BEELER. To shorten the zone system, I do not know why it should not be, in the event it is necessary. Look at London. In London they haul—practically all the riding for any distance is on the measured basis.

Commissioner GADSDEN. They do not start off with a minimum of a nickel, though.

Mr. BEELER. It starts off with a lower minimum than that.

Commissioner GADSDEN. Yes.

Mr. BEELER. But it is on a measured basis, and they have many more passengers per mile than we have in America. We run about six per car-mile. We are running now from six to eight per car-mile and they run as high as fifteen to twenty.

Commissioner SWEET. Mr. Beeler, in this city one of the companies, as I understand it, is doing well and the other not well. That is the fact, is it not?

Mr. BEELER. That is the fact; yes.

Commissioner SWEET. Do you ascribe that difference to the difference in management, entirely?

Mr. BEELER. No; I do not. The company that is not doing well has a very large number—or a very considerable portion of its business conducted on long suburban lines, very long hauls. It is the long haul that handicaps that company, unquestionably.

Commissioner SWEET. The Capital Traction Co., which is doing well is peculiarly favorably situated with regard to nonpaying portions of its road, is it not?

Mr. BEELER. Yes; it is.

Commissioner SWEET. As a matter of fact, if you do not mind telling us, do you consider that there is a difference in management that is favorable to the Capital Traction Co.?

Mr. BEELER. Every management has its personal equation. That is very largely a question of opinion. I would rather not express myself on that.

Commissioner SWEET. I thought perhaps you would rather not. Do you not think, Mr. Beeler, that in order to attract the short-haul customer and wean him from the walking habit to the riding habit, it would be wise to have a lower fare than 5 cents for a certain portion of the trip?

Mr. BEELER. Well, that may come later, but at this time I would not advocate it; but I think it would be well to give as much of a ride for 5 cents as the company can. And 5 cents is really no more to-day in the average workingman's pocket than 10 cents was 10 years ago.

Commissioner SWEET. As a matter of fact, is it not true that the objection to the 10-cent rate which they have in so many parts of America is fanciful?

Mr. BEELER. I should say 3 cents was.

Commissioner SWEET. My question to you is whether there is not a great deal of fancy and misunderstanding of real facts in the opposition to the 10-cent fare?

Mr. BEELER. Well, the opposition to the 10-cent fare comes largely from the people who are riding.

Commissioner SWEET. But as a matter of fact is the 10-cent fare any more in purchasing power and in reality than the 5-cent fare was five years ago?

Mr. BEELER. No; not in labor and materials, but it is in the interest charges on the investment.

Commissioner SWEET. Very true. But the car rider, at least a great majority of the car riders, are not investors, are they?

Mr. BEELER. That I could not say. I presume not.

Commissioner SWEET. The street railroad is often called the poor man's carriage, is it not?

Mr. BEELER. Well, there are a great many people who prefer the street-cars to ride on, even though they could afford other means of transportation. It is safer and more convenient to a great many people and there are really a great many people riding in other means of transportation that ought to be on street-cars.

Commissioner SWEET. Undoubtedly.

Mr. BEELER. I think the street-car is really the universal transportation of a city. It is the fundamental transportation that any city is dependent upon.

Commissioner SWEET. Although we find, as a matter of fact, a great many people of large means who ride on street-cars and a great many people with small means who ride in automobiles, still as a matter of fact it is true, is it not, that the automobile is the means of conveyance, speaking generally, of the wealthier part of the population, and the street-car of the moderately well-to-do part of the population?

Mr. BEELER. It goes without saying that that is so. The cost of the ordinary trip in an automobile I had occasion to figure up a number of years ago in a certain western city, and it approximated 15 cents for each passenger carried each trip in the city, as against 5 cents on a street-car.

Commissioner SWEET. Did you hear Mr. Bauer's testimony this morning?

Mr. BEELER. I did.

Commissioner SWEET. Do you agree with him in regard to the relative economy of electric power as a means of propelling vehicles, and gasoline?

Mr. BEELER. There is no question but what in the present state of the art it costs more to operate, including your wear and tear on the equipment, an auto bus than it does a street-car. It costs more to operate a two-man auto bus than it does to operate a two-man street-car. It costs more to operate a one-man auto bus than it does to operate a one-man street-car.

Commissioner SWEET. That was not Mr. Bauer's idea, was it?

Mr. BEELER. I do not know that it was. I did not hear that part of his testimony. I only heard a part of it.

Commissioner MAHON. It was just the opposite.

Commissioner SWEET. That is my understanding of it. If I understood him correctly, his view was that the public ought to buy the street-railroad properties throughout the country and then practically, in the course of time, scrap them and run everything on the automobile or auto-bus basis.

Now, he did not say that in so many words, but I think what he said was capable of that understanding.

Mr. WARREN. I do not know that I want to have this go on the record, because he is not here, but that was the impression I got,

and I asked Mr. Bauer after the hearing if he meant that. I said it was rather a curious thing to purchase street railways in order to scrap them. He said, "I do not mean that. I mean they ought to be purchased, because if run by the public at low fares they represent a very necessary public convenience, but if they are going to be run at the high fares I think they may go up—the people will not use them enough to keep them going."

Commissioner SWEET. Well, it struck me as rather curious anyway. I understood him to say that this transportation problem was entirely a social problem, Mr. Beeler. Is that your understanding?

Mr. BEELER. Yes.

Commissioner SWEET. Don't you think there is some truth in that?

Mr. BEELER. Undoubtedly there is. The question of transportation is one of the most vital problems of civilization. Community life is dependent more or less upon good transportation to-day.

Commissioner SWEET. Do you think that phase of the street-railway problem is properly understood and considered by the general public?

Mr. BEELER. I doubt if it is properly understood. I doubt if it is even partially appreciated. I know of one instance where an entire city was shut down by a tremendous snowstorm, where the snow fell to a depth of between 5 and 6 feet in a few hours, and it was about three days before a normal car service was restored, and after that the entire population had an entirely different feeling with reference to the local street-railway company.

Commissioner SWEET. I do not know whether you expressed your view with regard to the social influence of the zone plan. But whether you have or not, will you tell me what you think of it from that standpoint?

Mr. BEELER. Well, there are so many different kinds of zone fares. The zone system is a study by itself. It seems to me that the principle of paying for what you get measured by a distance basis is the ultimate solution. It may be by a series of fixed zones or it may be by something along the lines of the Public Service Corporation. They have marked off each mile—the first mile is so much and the second mile is so much additional. Any step in that direction, it seems to me, is a step in the right direction. It may be that the methods employed by some companies are not as equitable to the public as they might be, but the zone system and the measured-service principle is universally recognized abroad and seems to be giving the very best satisfaction there on lines that are doing a much greater volume of business than the lines are in this country, and they attribute it very largely abroad to the fact that they cater to the short-haul patron.

Commissioner SWEET. In this country we have had generally in use the flat-fare system, have we not? That has been the prevailing system here?

Mr. BEELER. Yes.

Commissioner SWEET. And the suburbs of many of our cities have been built up under the flat-fare system. Is not that true?

Mr. BEELER. That is true.

Commissioner SWEET. Do you think there is any moral responsibility resting upon the public that that system is maintained because

of the fact that the suburbs have been built up under that system and an implied contract that it would continue so?

Mr. BEELER. If the flat-fare system has to be retained for the simple reason that suburbs and outlying sections have been developed on account of the flat fare, it would seem to me that it would react not only upon the long-haul rider but upon the property owner, if by raising the fare to a higher flat rate of fare, so that you lose practically 40 per cent of your business, as was shown in Boston, that the entire burden must then be placed upon the shoulders of the man or the patron who can not walk; if the system is allowed to drive away the profitable short-haul rider because the man on the outskirts wants a flat rate, it seems to me it is up to him. If he would prefer a high flat fare all over the town and bear the entire burden, the man down town will have little or no kick coming, because he can walk.

Commissioner SWEET. You think that, in order to enable the companies to live on the flat-fare plan, the fare would have to be made so high that it would be a burdensome perhaps to the suburban customer as the zone plan would be and maybe more so?

Mr. BEELER. I think the suburban customer would probably get a lower fare than he would by means of a flat-rate fare if all of the short-haul riding is developed or retained by the system.

Commissioner SWEET. But, of course, what you are saying now would depend upon local conditions in any one particular community, I suppose?

Mr. BEELER. No; I think not. I think the local-condition theory is all wrong. I think too much attention has been paid to local conditions. Mr. Ford makes a machine that runs just as well over the prairies of Kansas as it does on Fifth Avenue, New York. I think the secret of the whole thing is simply operation wherever it may be. There may be a slight variation in the gear ratio or something of that kind, but what the street-railway investor needs is light, attractive cars and have general attractiveness of the whole business.

Commissioner SWEET. Don't you think there is a very material difference in the attitude of the public in different communities toward the street-railway companies?

Mr. BEELER. Well, there is some difference.

Commissioner SWEET. In Philadelphia and Cleveland is there not a more friendly sentiment to the railroad companies than in Pittsburgh, we will say?

Mr. BEELER. There is unquestionably a difference on the sentiment of the communities toward the local railroads, but that is again largely a question of past management and history and the attitude of the newspapers.

Commissioner SWEET. The real policy that has been in vogue in the United States in regard to street railroads has been exactly the opposite of that recommended by Mr. Bauer, has it not? In other words, instead of looking upon it from the matter of transportation standpoint, something that ought to be free as water, in most communities we have been putting an extra obligation upon the car riders as compared with the balance of the community, have we not?

Mr. BEELER. That is true.

Commissioner SWEET. This matter of paving between the tracks is an example, is it not?

Mr. BEELER. That is true.

Commissioner SWEET. Is not that all wrong?

Mr. BEELER. That is what I said in the beginning. The street-cars have been paying for pavements that the jitneys have been wearing out. It seems to me entirely wrong in principle to allow a jitney service or a bus service to come in and by means of unfair competition render a service inoperative that they can not replace themselves.

Commissioner SWEET. But taking the view of the situation that people of moderate means are those who, in the main, constitute the car riders, is it not an injustice and a very unjustifiable situation that the burden should be placed upon the car riders, and this paving done from the nickels that they contribute, rather than from the owners of automobiles who actually get much more use of that paving than the people who ride on the cars?

Mr. BEELER. Certainly.

Commissioner SWEET. It is an absolute inconsistency, is it not?

Mr. BEELER. Yes, sir; it is.

Commissioner SWEET. And one that ought to be corrected everywhere.

Mr. BEELER. I think so.

Mr. WARREN. May I ask Mr. Beeler two or three questions? You examined in a general way, did you not, the Boston Elevated Railway for the Public Service Commission in Massachusetts?

Mr. BEELER. I did; yes, sir.

Mr. WARREN. Did you hear Mr. Homer Loring's statement this morning that the trustees were charging off, I think, \$2,000,000 a year for depreciation?

Mr. BEELER. Yes; I did.

Mr. WARREN. Do you think that is an excessive charge?

Mr. BEELER. No; I do not.

Mr. WARREN. If an adequate depreciation charge is made, as they are making there, what if any figure ought to be the normal maintenance charge for the company, what proportion of its gross receipts? I do not mean now the Boston Elevated, but take your typical company of a million dollars.

Mr. BEELER. Well, it is very difficult to determine what proportion of the earnings should go into maintenance, for the reason that so much depends on the volume of business. The average line, we will say, has a volume of business of \$20,000 or \$25,000 per mile of track per annum. Another line may have a volume of business of \$60,000. Now, that line that has the greatest volume of business will require the lowest percentage of gross receipts to pay for operations. That is rather difficult to determine, but I would say that, roughly speaking, on a surface line, if you take about 3 per cent depreciation on two-thirds of its value, you strike very nearly to a rough average of the replacement value required to be set aside.

Mr. WARREN. Then could you give a rough figure for the amount of maintenance for such a line or the limit, say, from such a figure to such a figure?

Mr. BEELER. Well, say 15 to 20 per cent.

Mr. WARREN. After taking care of the depreciation?

Mr. BEELER. Yes.

Mr. WARREN. Does the maintenance cost a great deal more now? I mean, given about the same amount of earnings, the fare not having been changed, would you have to charge up more for maintenance now?

Mr. BEELER. Maintenance is higher.

Mr. WARREN. Because of the cost of labor and materials?

Mr. BEELER. Maintenance is higher on account of labor and materials, and it does take a slightly higher percentage than it did before, even considering the increase in the volume of business.

Mr. WARREN. The one-man car of which you spoke: Is it your opinion that that can be used on the peak-load in most cities, perhaps not cities of the very first class like New York or even Boston, but cities of 200,000 or 300,000 people?

Mr. BEELER. There is no question but what the one-man car can be used in many cities—almost exclusively in smaller cities.

Mr. WARREN. Cities of 150,000 to 200,000?

Mr. BEELER. Yes; and there is no question but what its use can be very largely adopted in the larger cities on certain lines, not only during the rush hour but at all periods of the day.

Mr. WARREN. Yes; I think it can at other hours, but I wondered whether you thought it could during the rush hours.

Mr. BEELER. Oh, yes.

Mr. WARREN. There is no danger of its doing what the motorman might do—I think you suggested—of getting the congestion so great that it could not move the people?

Mr. BEELER. Well, the one-man car will haul as many people as three motor buses. I have seen the one-man car during the rush hour loaded with 80 people. Now, you take the average jitney motor bus, and you have a big load when you get 20 on it. Of course, if you take the Fifth Avenue Coach Co., their buses will seat 42 to 44, but that traffic on a line of that kind is very erratic. In inclement weather nobody will go up above and the seating capacity is reduced by more than half when they are confined to the downstairs portion of the bus; therefore you have got to consider the ultimate all-the-year-round capacity. I would say that there is no comparison between a street-car and a bus to-day as far as capacity goes. The ordinary bus, such as operated in Newark to-day in jitney operation, will seat about 12, and by crowding them in you can get 20 in, but it is a very uncomfortable operation; and if any street car company attempted to give any such service as that I think they would soon be put out of business by the public.

Mr. WARREN. You spoke of Cleveland as giving better service, I think, at around 5 cents than many if not most of the companies that have raised their fares. Are the conditions in Cleveland materially different from those in many cities, as regards the length of haul—not possible haul, but actual haul?

Mr. BEELER. I think there is about the average condition obtaining there. Cleveland was one of the first cities to adopt the elimination of unnecessary stops and, by so doing, they speeded up their schedules, and Cleveland to-day gets a higher scheduled speed than most of the average cities. At the same time, they rehabilitated and put on attractive equipment, and the result is that their car-hour earnings are much higher than the average; their car-mile earnings are about the average.

Mr. WARREN. Is there a direct relation between the speed and the operating expense?

Mr. BEELER. There is.

Mr. WARREN. If you increase your speed 25 per cent is that the same as reducing your operating expenses 25 per cent?

Mr. BEELER. Not the same; but it has a very marked influence. Take an average line that is earning 40 cents a car-mile and making a speed of 8 miles per hour—it will be earning \$3.20 an hour. Take another line that is earning 40 cents a car-mile with the same kind of equipment and making 10 miles per hour—it will be earning \$4 per hour. Now, the expenses are practically the same, almost the same. The way speed is made is by better acceleration and faster braking, eliminating the stops and delays; and that all has a tendency to reduce the operating ratio, for the reason that your wages are paid on the hourly basis. Practically all the income of a street railway goes out on an hourly basis or on a time basis, and the receipts come in on a mileage basis, for it is transportation that is being sold. Now, the more miles that we can get out of a street-car, the less operating ratio and the less the ratio of fixed charges and everything else.

Mr. WARREN. Cleveland has a very high——

Mr. BEELER. It has a high scheduled speed.

Mr. WARREN. And that was produced almost entirely, was it not, through the cooperation between the city and the company?

Mr. BEELER. That was brought about very largely through the efforts of Mr. Peter Witt, who was at that time a city transit commissioner. He had made a study of the situation: the schedules were slow, and he eliminated all of what he considered unnecessary stops and put the stops farther apart generally throughout the city, and the speed was increased something like a mile and a half per hour. Not only did that increase the receipts per car-hour but it also increased the receipts per car-mile, because it popularized the service and more people rode.

Mr. WARREN. But he also incidentally cleared the track too, did he not?

Mr. BEELER. He cleared the track and secured the cooperation of the police at street intersections and in every other way possible.

Mr. WARREN. Much of that except with cooperation from the municipal authorities would have been beyond the power of the company to bring about, would it not?

Mr. BEELER. The cooperation with the authorities to obtain the full result is absolutely necessary; yes, sir.

Commissioner MEEKER. You spoke of the large cars over against the small one-man car. I understood you to imply, at least, that the larger cars could carry more people in a given time than the smaller car. Did I understand you correctly?

Mr. BEELER. No; I do not remember that statement exactly.

Commissioner MEEKER. It was in answer to a question asked by Mr. Warren in regard to the rush hour handling of traffic by the small car.

Mr. BEELER. I said I thought that the safety car should be used during the rush hour as well as during the nonrush hour; that I had

seen them loaded with 80 passengers during the rush hour, which was three times the load of the average jitney bus.

Commissioner MEEKER. Do you think that the small safety car can handle the peak-load of traffic as well as the larger heavier cars?

Mr. BEELER. I think it can on lines that are not too congested with too many of the large cars. You take the small car in Seattle: the small car in Seattle runs in between long lines that employ the large cars, and the management when they put the small car on were rather fearful that the small car would delay them, especially during the rush hour, but the results were just the opposite. The small car was closely following the large car almost invariably and it has been proven almost conclusively that the small cars will make an increased scheduled speed as high as 20 per cent over and above the ordinary two-man average car that is now in use; and I think the average results show something between 10 and 15 per cent that are used, and they are used in cities such as Fort Worth, Dallas, and Houston, Tex., where the loads were tremendous, especially during the Army activities.

Commissioner MEEKER. So if 100 per cent of your cars were the small safety cars, they would be able to handle the peak-load of traffic just as well as the larger cars?

Mr. BEELER. If you increased your service 100 per cent or if you give, instead of 12 cars an hour, 24 an hour, with a smaller car you can actually increase your car riders.

Commissioner MAHON. Cleveland's success was not due to small cars, was it?

Mr. BEELER. No, indeed. Cleveland's success was largely due to speeding up the schedules and the use of trailers. The trailer is also a one-man car—

Commissioner MAHON. It was due to the trailer, was it not?

Mr. BEELER. And it is light and it does not add a great deal to the peak-load on the power station; and on lines of that character where travel is very heavy and fairly long and the stops fairly long apart, the trailer operation is ideal.

The CHAIRMAN. We thank you very much. Mr. Cooke, will you take the stand at 10 minutes of 4?

(Whereupon, a recess was taken for 5 minutes.)

STATEMENT OF MR. MORRIS LLEWELLYN COOKE.

Mr. COOKE. Mr. Chairman, I have never had, as you know, any administrative relations to the street-railway problem, and perhaps for the purposes of the record, I should say that my contact with the whole utility problem comes through having been director of public works in Philadelphia. While holding that position I conducted, under the instructions of the city council, a rapid-transit study which ultimately led to the formation of the city transit department, and under the charter of the city I was charged with either the conduct or the oversight of all other municipal utilities.

For a number of years I have been acting director of the Utilities Bureau in Philadelphia, and through that position I have advised with the officials of a number of American cities on street railways—New Orleans, Buffalo, Atlanta, Seattle, Boston, and others; and during the war I had various contacts with utility matters on behalf of

the Government, including street railways; and organized, or at least built the preliminary organization for the passenger transportation department of the Emergency Fleet Corporation.

I simply want to say that because, not having any administrative contact with the problem, it occurred to me that it might be useful to you gentlemen.

Mr. WARREN. Was that bureau a municipal body that you mentioned in Philadelphia?

Mr. COOKE. The Utilities Bureau?

Mr. WARREN. The Utilities Bureau. Was that a part of the municipal government?

Mr. COOKE. No; the Utilities Bureau was an intercity agency that was organized in 1914 by the mayors of about 100 American cities; and up to the time of the war published a magazine and performed various other functions.

Our street railroads constitute, broadly speaking, the most completely discredited feature in the administration of a city. The public, remembering not only past wrongs, but having in mind present-day inefficiencies, not only takes no interest in lightening the burdens of those who are responsible for the operation of these properties, but seems actually anxious to precipitate the final stages of what may easily develop into a national tragedy.

In the widespread antipathy to the owners of these properties and, further, in the conviction so generally entertained by the public that all adventure has gone out of the street-railroad business operated as a private undertaking, this commission, I believe, will find the greatest obstacle to putting into effective operation such constructive suggestion as it may make.

Continued adversity might possibly win over the most obdurate and old-fogey director to enlightened management and a square deal; but without the hearty cooperation of the public almost nothing can be done.

My own impression is that the differences between the public and private interests involved have become irreconcilable. The operators of these properties, and especially their promoters, have erred so grievously against the public that, except with isolated properties and where conditions are exceptional, no compromise is likely. In most situations with which I am familiar it would seem to me highly improper that a compromise should be reached on any basis thus far suggested by the private interests involved.

While I am not opposed to government ownership as such, and especially not for the reasons usually advanced against it, I would view with more than concern any considerable or immediate broadening of the functions and responsibilities of our municipal administrators. We are doing far too much of our present task in an indifferent fashion to make it wise to add to the burdens.

For this reason I would welcome any scheme which would permit of a further period of private operation; but, frankly, in view of the public attitude and in the light of the history of this industry, much of this attitude is warranted, I see no adequate solution which does not involve a maximum of public control and probably of public ownership and public operation.

Before making an effort to suggest the constructive steps which I believe must be taken before the street railroads can be put on any-

thing approaching a satisfactory basis I would like to point out a number of specific obstacles which at present stand in the way of a satisfactory settlement of this problem. Because the profits have been made through financing these properties, rather than through operating them as public services, the valuation factor has from the first been overemphasized. In fact, up to a recent date one hardly ever heard of the efficiency-of-operation factor.

As a result of my contacts with the utility situation in nearly all the large cities of the country I estimate that on July 1, 1914, the face value of the outstanding securities of these municipal undertakings represented almost twice what might be considered the fair value as estimated by fair men unschooled in the equivocations and mirages so assiduously conceived by versatile lawyers and valuation experts during the last 20 years. While my inquiries in the street-railroad field had not been as conclusive as in the electrical field, everything points to alleged value bearing to real value a ratio of at least two to one.

The unity of the banking control back of these properties, usually seeking through such organizations as the American Street Railway Association, the American Gas Association, and, to my way of thinking, the especially vicious National Electric Light Association, which makes its headquarters in the Engineering Societies' Building in New York, makes it possible to determine even illicit policies and plans and put them promptly into pretty general practice throughout the country.

These associations, while nominally distinct and each interested in a different industry, work in the closest possible harmony. Practically the same group of what might be called "investment financiers" virtually control all these associations.

Notwithstanding this organization for united and nation-wide action on the part of the private interests involved, there is no administrative agency to unite and safeguard the public interests; and, as it is, many obvious wrongs have been permitted simply because there was no adequate way of voicing opposition.

The United States Bureau of Standards, the Association of State Public Service Commissioners, and the Utilities Bureau have done what they could with hopelessly inadequate funds to fill the breach.

The valuation of these street railroads and other municipal properties under several different systems, according to the use such valuations are to be put, such as taxation, rate making, issuing securities, etc., introduce further complications.

It is because those in charge have had their attention centered on financial rather than on operating considerations that past and present untoward tendencies have not been discounted and offset more effectually.

I have had a good deal to do with the printing industry, where the plant charge per dollar of product is very high, and where, owing to invention, development of one kind and another, it has been necessary to anticipate changes and to mark up pretty heavy depreciation; and in the street-railroad world—in fact, in the utility world pretty generally, but I think it is more marked, of course, in the street-railroad world—there has been relatively little attention paid to that feature of business.

The present deplorable state of our street railroads was not reached overnight and is not due to any one single cause. If their managers had been on their jobs these remedial measures which you are now discussing would have been inaugurated years ago.

The point I want to make is that while the situation has doubtless been precipitated by the war, conditions incident to the war had really very little to do with it.

The attitude of the owners of these properties is such as to make it very difficult for the public to get at the real facts. Propaganda supporting officially authorized theories of valuation, methods of accounting, principles of management, and so forth, are carried on in every direction.

It was the American Street Railway Association, which seven years ago, or some years ago, startled the country with its plan for influencing education at the source.

I read as follows from "Snapping Cords," a title given to two lectures on utilities, delivered in 1915 in several eastern universities:

Again last year the American Electric Railway Association gave forth a "Code of Principles," which advocated, among other things, fair returns on capitalization, no matter how extravagantly watered, exclusive State control of the local utilities and the holding company. The same report advocated the operation of a financed bureau of public relations, which is to have among its various functions that of "Influencing the sources of public education, particularly by (a) lectures on the Chataqua Circuit, and (b) formation of a committee of prominent technical educators to promote the formulation and teaching of correct principles on public-service questions in technical and economic departments at American colleges, through courses of lectures and otherwise.

Commissioner MEEKER. From what is that quoted?

Mr. COOKE. That is quoted from Code of Principles, of the American Electric Railway Association; and my quotation including that quotation is from a pamphlet of my own—two lectures given at several universities—that I published under the title, "Snapping Cords."

I will leave this with the commission.

Those who seek to uphold any measure, device, or system which will run counter to that which has received official sanction by these associations are subjected to a relentless and usually quite effective pressure. There has been established an essential solidarity in these industries which is frequently antisocial, if not illegal, and which discourages initiative and enshrouds the whole utility world in a maze of autocracy, secrecy, and ultimate inefficiency.

It may help to an understanding of the whole situation to mention another difficulty in the path of street-railway reconstruction. Owing to the manner in which this industry was developed, the engineers who practice in the utility field are almost without exception subordinate to and usually subservient to the financial men. In a paper entitled "Some Factors in Municipal Engineering," read before the American Society of American Engineers in 1914, this subject was discussed as follows:

There are certain kinds of engineering in which financial and almost all other kinds of preferment depends on an attitude of mind which, while not necessarily antisocial, does not provide sufficient opportunity for entertaining a virile public point of view. As a representative of the public rather than private interest it is my duty in choosing the advisors of the city which I have

the honor of serving, to satisfy myself not only as to the ability of those we employ, but also as to their disinterested—yes, their public point of view.

No matter how able a man may be, how broad his experience, nor how high his standing, his interest to those who employ him must at all times be consistent with the public interest if from my point of view he is to be available for public employment.

Judged by this standard, there are in certain fields of engineering almost no engineers who are at present available for the service of the public and who at the same time have sufficient experience for large undertakings. In the past few years we have had unusual opportunities for seeing at close range the professional attitude of those equipped with the technical knowledge required in advisors to cities on utility matters. It has been practically impossible to secure the services of those with reputations already made in the electrical field. Some of our experiences could be considered, on the whole, rather amusing were it not for the fact that we are left under the obvious conclusion that for the average city official to get good advice on these matters is well-nigh impossible. What is more objectionable is that this condition is one quite generally recognized as true by city officials. We hear a good deal of complaint on the part of engineers that, as a profession, we are not chosen more frequently to serve on public-service commissions and for similar technical work. Perhaps in our experience may be found at least part of the reason for that condition. Of course, when a city wants advice on a subject such as this, the matter is usually one of considerable importance, often involving large sums of money; and in reaching conclusions the city official should not be dependent for advice on junior members of the profession.

I had a rather interesting experience in that connection in the drafting of a contract with the Pennsylvania and Baltimore & Ohio Railroads. Paragraph 16 of that contract had to do with the utilization of a belt line owned by the city of Philadelphia, and my associates and myself, who represented the city in those negotiations, spent a great deal of time in trying to locate a man who was competent to advise the city in a matter such as that, and we were unable to discover but one man upon whom there was general unanimity of opinion that he not only had the ability to serve us but that his professional and other commitments and relationships were such as made it possible for him to do so.

This situation has improved somewhat recently because of the larger number of engineers employed by State commissions and on public-owned utilities; but as long as the private interests pay salaries so out of proportion to that paid by the public, and so long as they are allowed to discourage and even ostracize those practicing as public engineers, the most experienced talent will be found serving the private companies.

I may say that, unless they have changed it within the last few months, no electrical engineer can belong to the American Street Railway Association unless he is affiliated in the employ of some company member. They have a class C, I think it is, of members, for college professors and others of that kind, but they must be reelected to that membership once a year. I know of no other organization, technical, social, or otherwise, where a man has to be reelected once a year. To me it is a highly improper and dangerous practice in a democratic community.

Commissioner WEHLE. When you say, "American Street Railway Association," do you mean the American Electric Association?

Mr. COOKE. The association I was then referring to is the National Electric Light Association. There are two associations: The American Street Railway Association and the National Electric Light Association. They are two absolutely independent associations in their organization.

Mr. WARREN. You do not make that charge against the American Electric Railway Association?

Mr. COOKE. No. This Class C membership is the National Electric Light Association.

Commissioner WEHLE. When you have spoken at other times about the American Street Railway Association——

Mr. COOKE. I meant the American Street Railway Association.

Commissioner WEHLE. There is also an American Electric Railway Association. That is different, is it?

Mr. COOKE. I can give you the official title.

At the time this Code of Principles was brought out it was the American Electric Railway Association. I believe the name has since been changed. I am not sure of that.

Mr. WARREN. I think that is its present name.

Mr. COOKE. The American Electric Railway Association.

Commissioner WEHLE. That is the name of the present association, is it not?

Mr. WARREN. Yes.

Mr. COOKE. I am convinced that no engineer or valuation expert has any right to practice on both sides of these questions. There are good men practicing on either side, but to practice on both sides, with the terminals as far apart as they are to-day, and have that practice fair to the public is a hopeless undertaking.

This commission can not be without especial interest in the valuation work, much of it in the street-railway field done by engineers of the type of George F. Swain, professor of civil engineering at Harvard University and past president of the American Society of Civil Engineers, and Mortimer E. Cooley, dean of the school of engineering at the University of Michigan and at present president of the American Society of Mechanical Engineers. Without a study of the extent to which valuation work has been carried, as illustrated in the work of these men, no accurate picture of the present situation of this industry can be obtained.

In my opinion much of the public clamor against the street railroads is in protest against the effort to base rates on fictitious values. The engineering profession will eventually declare such antisocial and unscientific conduct to be unprofessional. In the meantime the country must be on its guard.

A good many suggestions for relief have been made which would be acceptable except for the fact that there is no equitable or confidence-inspiring method of putting them into effect. For instance, I would be in favor of paying out of the tax rate such portion of the expense of an obviously desirable and nonselfsupporting improvement as the Cambridge subway, in Boston, as might be shown to belong to the community as a whole, rather than to those who used it, if the book-keeping methods current in the utility world were different from what they are, and if the public stood a somewhat better chance in getting dependable technical advice in making the bargain. It is because there are so many details to cope with and so many ways of avoiding the essence of an order that regulation is unable to cope with the problem single handed in a way to command public confidence.

At least theoretically we are all for some kind of a cost-of-service plan. But I am opposed to the kind which has been principally

stressed before this commission, first, because it will have a tendency to validate excessive valuations, and, second, because it will inevitably capitalize inefficiency.

The proposal is quite comparable to the profit-sharing schemes so strenuously urged now as a cure-all for industrial disorders. Labor is not a bit interested in profit sharing, because labor has no confidence that it understands the rules of the game and has had no hand in developing those rules. Any cost-of-service plan initiated now would rest in most instances on a discredited financial base and be operated under accounting methods designed for an altogether different purpose than the one which I take it we all have in mind now—that is, the service of the public.

It is futile to lift the handicaps under which this industry suffers, unless it be preliminary to making constructive suggestions which are not only possible of execution but which give promise of relief. I am convinced that any program for the rehabilitation of those properties to be successful must have efficient operation as its primary plank.

After all, it is much more fundamental to ask how these properties are to be operated than who is to operate them. It is all very well to recognize that no industry with scandal for its background can thrive. Personally, I do not see how a technical man or any other kind of a man can be happy in working for a street-railroad company or an electric company that has outstanding securities in excess of \$50,000,000 when its actual value in the language of the man in the street is half of that. I do not see how it is possible to attract to it the type of men that can efficiently operate it.

Again, it is easy to point out that corrupt politics and effective street-railway service are, in the long run, incompatible. To correct such conditions is a more difficult matter. They do not yield to a direct attack. I do not believe that good habits result from good principles. I believe that good principles result from good habits. Therefore I believe the real relief in this situation is going to come about through effecting efficient operation, and in that way making odious practices in finance or in any other department that are not in harmony with the best modern ideal as to efficient management.

I believe that one of the best illustrations I can cite of the accomplishment of efficient management is the record which has been made on the Philadelphia Rapid Transit Co. during the last 8 or 10 years under the administration of Mr. T. E. Mitten.

I do not believe that even Mr. Mitten would claim he had struck 12. On the contrary, I am of the opinion that he is only beginning to discover what can be accomplished when the exclusively financial control which has heretofore obtained is assigned its proper place in the whole field of the enterprise, and when operating experts are given a real chance. This means, of course, a gradual change in the type of men employed. For instance, officers and other employees who are useful when legislatures had to be bought and public officials needed to be placated, yield their places to engineers, statisticians, and labor experts.

In industry there has been gradually developed a science of cost keeping, in the absence of which effective or efficient management is absolutely impossible.

In an article which appears in the January, 1919, issue of *Industrial Engineering*, under the title "True cost finding—what it can do for the railroads," I said:

The cost factor is the best measure of performance known, regardless of whether the performance desired be war-making capacity, reasonable freight or passenger rates, economy in labor or material, returns on the dollar invested, or any other.

But there is almost no cost keeping on American street railways. What is even more astounding is that most street railway men consider it impossible to secure costs. That Day & Zimmerman, operating the Penn Central and other utility properties, have developed a thoroughly satisfactory system is almost unknown among utility men. To be perfectly frank, intelligible accounting methods and securing of unit costs are both inconsistent with the basic objects for which our public utilities have been operated.

I had the pleasure some three or four months ago of taking, I think, the highest accounting officials of the Railroad Administration and the Interstate Commerce Commission, with a member of the commission, to Philadelphia to inspect this cost-keeping system that is in use in this Penn Central property, which has a street railroad connected with it, I think. It is rather a small one; and although two of those three men, if not all three, went to Philadelphia quite as doubting Thomases as to whether it was possible to obtain costs on a utility property, and if obtained, whether they were worth going after, they all expressed themselves altogether convinced by their experience on that trip that it was not only possible but well worth while, and they made a recommendation to the Director General as to the application of those methods on steam railroads.

Of course, after operating effectiveness has been substituted for the financial and pseudo-financial incentives which have heretofore obtained, there is gradually developed throughout the system and in all departments a genuine science in management. Pick-up, gains, economies, and new ways of increasing efficiency become the rule. The management becomes imbued throughout with the spirit of progress, and men who look upon the industry as static and methods without present-day value are eliminated.

It is as futile to make constant demands for increased fares in the absence of some genuine and enlightened effort toward more efficient management as it is for labor to constantly demand shorter hours and increased wages without making provision for increased production. Carried beyond a certain point it is equivalent to the effort to create something out of nothing.

The question of what shall be done about the excessive valuation or watered stock remains to be answered. Where there is an excessive difference to be absorbed, as is the case in many cities, I suppose there is nothing to do but let nature take her course. In any such case the readjustments incident to a receivership and a reduction in the property-investment account will come as the inevitable retribution for past mistakes. It will be found that our old-time friend, the "widow and orphan," will not suffer as much in this as we are sometimes led to believe. Some years ago I examined the investment lists of four of the largest savings funds in Philadelphia and found that among investments totaling hundreds of

millions there was not one dollar in municipal-utility securities. In other words, careful investors have been on notice for some time.

But where the excessive valuation is not too great and where efficient management has been installed, adjustments reasonably fair to all concerned and not involving too radical readjustments should be possible. Here again we can turn to Philadelphia for an illustration. Everyone knows that there is in the Philadelphia Rapid Transit a large underlying layer of the purest water, running into the tens of millions. I think it is a fair statement that, as the result of the past 10 years of careful management, a part of this overcapitalization may be said to have been absorbed. If Mr. Mitten continues his activities and along the most promising lines, I think it will be altogether possible for him to further reduce the discrepancy between real and alleged value. If present prices are maintained, of course his task will be the easier. I can then conceive that at some future date there can be reached some conclusion as to what the shortage is, and that this can be in part validated in an open and aboveboard manner by a public which is not without some measure of responsibility for its existence, and in part covered by a cancellation of outstanding securities. After all, neither the city nor the security holders should advocate the revolutionary route of a receivership if the necessary adjustments can be made by a more orderly process. Any such settlement is contingent upon full evidence of good faith on the part of the company and the establishment of a progressive and efficient management of the property. In this Philadelphia situation, unless the adjustment is reached by some such method as suggested, the community will ultimately insist upon a valuation made very largely for the purpose of exposing past wrongs, and without any desire to give the management even a sporting chance.

I believe that another place where the management of these properties has been grievously in error is in the management of its labor problem.

I am not altogether in favor of—in fact, I have some very serious misgivings about—the Philadelphia plan. But it has represented to me an earnest endeavor, up to the lights who put it into effect—an endeavor toward bringing order out of what was certainly hell in Philadelphia up to the time of the present management.

Taking the country as a whole, however, the management of these properties has, I believe, more ignored the labor problem than been autocratic. I think they have been very much afraid of it. But, no matter what the motive was, they are very much to blame, in my opinion, for having made almost no start toward establishing that mutuality of interest and cordiality of relationship which has not gone any too far in any industry, but the foundations for which have been laid and much more satisfactory foundations for which have been laid in other industries.

There were one or two points in Mr. Beeler's testimony that, in closing, I would like to refer to.

I want to protest against his statement that the question of management is a question of personal opinion. I am not sure that Mr. Beeler was just the man to express an opinion as to which of the two Washington companies had the best management; but I do not

believe we will get anywhere unless we assume that there are certain forms of performance of the management, certain standards by which the managements of two companies can be compared. And I do not believe that either the public or labor or the investor or any other element interested in this problem will get anywhere until they have devised some sort of—20 questions, we will say—some yardstick that they can lay down on the management of the company and see whether it measures up; because we—all of us—know instances of the management of street railroads at the present time that are simply deplorable and we—all of us—know some that are pretty nifty; and until we can work out what constitutes performance in this field and what constitutes failure or near failure, I do not think that we will have done our task.

Now, in the matter of the remission of paving charges, I agree with Mr. Beeler and Commissioner Sweet in feeling that there are a lot of these things that do not read right. To make a street-railway company pay for, in some instances, paving between the rails, and in some instances paving from gutter to gutter, and in some instances paying half the charge is an old woman's rule; it is an old-fogey way of accomplishing the purpose.

Paving charges are, of course, only one such item; but at the time these bargains were made, it was a catch-as-catch-can proposition, and many of those things were used as what a book agent would call "talking points" by the company that wanted to secure the franchise—it seemed like a whole lot.

Now, some of those things have gone against the company and some of them have gone against the city. The paving thing has gone outrageously against the company, because in Philadelphia we had some roads that were to be maintained that were dirt roads, or virtually dirt roads, at the time this bargain was made, and now they have a very expensive pavement. I think the worst case is where the road was a macadam road and where with a minimum of attention it could be maintained under the kind of traffic it carried at that time, but in recent years, with the heavier traffic, it is not possible to maintain it; it has to be rebuilt, and the company is caught between two millstones.

But to simply let it go out from these hearings that all such things are to be wiped out without an equivalent of some kind, without their being made coins in a new game or elements in a new bargain, I think would be most unfortunate.

May I close by saying that I do not believe there is any way of working this thing out except we can put the industry on a basis where it can carry on its negotiations with the city largely as two traders do in their industries. We have got to get the cards on the table, and that community that will not play the game in that way ought to be made to suffer for it, and the management of any company that insists on trying to hold on to the old methods of the past and at the same time take advantage or try to take advantage of the new day ought to be driven to the wall. There is, in my opinion, no ultimate solution except we can get it on to a basis of a contract that is continually advantageous to both parties and the shorter the term of that contract and the easier it is for either side to change it the better it would be, in my opinion.

The CHAIRMAN. What would you have in that contract?

Mr. COOKE. Well, I do not believe I get your question, Mr. Chairman.

The CHAIRMAN. You said it would be necessary to get the two parties together in a contract to permit of the successful operation of the plant. It is very important to know what elements should be included in that contract, first, as to franchise requirements; second, as to fares, as to purchase, as to operation, and as to return on capital.

Mr. COOKE. Starting in with good management—understand I am not interested in working out any problem unless you have good management or there has been some evidence that the company is not only willing to put in good management but knows what good management is—I dare say that 9 out of 10 men in this industry, in the management, are firmly convinced that they have now good management, and unless you can change that point of view then I think it is perfectly hopeless.

My idea of management is that it is something that is not static; that the better management you have to-day the larger the opportunities for improvement just ahead of you. In other words, the industrial establishments with which I am familiar that are already on the best plane of management are the ones that are looking forward most to the improvements and economies and forward steps of the future. It is the man that is down at the heels that thinks management is static.

As to the franchise, it seems to me, Mr. Chairman, that we have our franchise experts. I am not a franchise expert, but as I come in contact with those men, given the broad basis on which you are going to work—that is, if you are going to get together and have peace and have efficiency—there ought to be no difficulty in arriving at the terms of such a franchise. But there are some conclusions to which the company officials have got to arrive before they can get there. They can not simply start in—most of them can not start from their present platforms.

The CHAIRMAN. Well, has your new deal got to start with an agreed valuation of the property?

Mr. COOKE. I should say that if a company expressed a desire to accept the best advice that could be obtained in the matter of the management of that property, and then said that they were willing to have a fair showdown on the matter of valuation, that I would have a great deal of hope of getting ahead. Personally, I think Mr. Mitten's plan is a little more adroit—I do not want to use that word, because it has a disagreeable application. I think Mr. Mitten has been going ahead and demonstrating the efficacy of good management and perhaps postponing the question of valuation or those financial adjustments, if I am right, and they are going to postpone them until after he has made some progress on his management of the road. I think perhaps that is the better policy.

The CHAIRMAN. Should the contract provide for a fixed or a flexible fare?

Mr. COOKE. You mean to change according to the—There again, Mr. Commissioner, a city official is in two positions; that is, he can take two positions. He can be a bargainer or he can be convinced

that the people on the other side really want to play an open and aboveboard game. Now, if they are going to play an open and aboveboard game, a fixed fare, in my opinion, is not the ultimate solution. If you are going to continue the past method of bargaining, I do not believe that you can blame the average city official for utilizing everything he has in his locker in the way of public psychology concerning the nickel and a good many other things.

The CHAIRMAN. Do you believe that the contract should fix the return upon capital invested?

Mr. COOKE. I have not reached a conclusion on that.

The CHAIRMAN. Should it provide for the purchase by the public of the plant?

Mr. COOKE. I rather think so, because I am not an optimist about the continuance of the private operation of the properties. As I tried to explain on a number of occasions, I am opposed at the present time to the widening of our municipal activities—that is, the public officials—and for that reason I would be glad to see the present scheme go forward indefinitely as far as I am concerned.

The CHAIRMAN. In your judgment, what is the best method by which to regulate these corporations—the method for regulating these corporations?

Mr. COOKE. I believe we have to have State commissions to perform two functions; to be the whole thing for most of the cities of the State and for matters in which more than one city is interested, and to standardize such things as accounting practice and working conditions, and all such things, but I believe that, where the city is large enough to retain adequate technical advice, a good many of the matters in connection with the regulation of local utilities ought to be in the hands of municipal authorities. I would put it this way, Mr. Chairman, that what can be best done by the locality ought to be done by the locality, but there are many things—

The CHAIRMAN. To the exclusion of the State?

Mr. COOKE. Yes; but there are many, many things that can not be done efficiently by the localities, as you know only too well. For that reason I believe in building up a strong State commission.

The CHAIRMAN. Have you any comment to make on the cost-of-service plan that has been so freely discussed?

Mr. COOKE. Yes. I think in the cost-of-service plan, as I have heard it described and as it has been presented here, you are going to step from the frying pan into the fire. I do not believe that its promoters realize the temper of the public or the trouble it is going to get them in.

The CHAIRMAN. What is the difficulty, if any, that may arise?

Mr. COOKE. I think primarily the difficulty is that it is based on the theory that such a matter as this can be arranged by a fixing of a new standard, such as the rate of return and the fare and a few things of that kind, and the big questions involved, questions of efficiency of management and cultivation of the public and the solution of the labor problem, escape them. They are the things that we have been talking about in the past more than the things we are going to talk about in the future.

Commissioner WEHLE. Do you think the service-at-cost plans as they have been developed so far do not sufficiently stimulate the motives of efficiency and economy? Is that your objection?

Mr. COOKE. That is one of my objections to it.

Commissioner WEHLE. How would you set about bringing those motives into play automatically by any system that you can think of?

Mr. COOKE. Well, I think in the utility field the simplest industry is the electric industry, and it seems to me it is possible to-day to go before a State commission and, granted in every instance that you have the most efficient management, to go before a commission to have rates fixed and allow them to be operative for a short period—three to five years—and give the company a chance to have extra earnings during that period if they make further improvements.

I do not know enough about the details of the street-railway industry to see the application of that method to that industry, but I have gone into it quite deeply in the electrical industry, and there do not seem to be any insuperable obstacles to it. But you have to educate the public up to it and you have to educate the commissions up to it and you have to have open and aboveboard cost accounting in order to make everybody feel that the game is on the level.

Commissioner WEHLE. Is there any way to bring about a checking up by the city of the efficiency and economy and bookkeeping of the company other than by practically duplicating its inspection and accounting organization?

Mr. COOKE. Yes; there is. It has not been applied in this field, but there is—that is, you can go to other industries and find those norms, factors of performance. We are just beginning to get them really—I mean the public is just beginning to understand. We have all been so intent on seeing that the workman did what we called a full day's work that we have not put as much time and thought in on the same tests for the management, but those tests have, during the last few years, been developed and there is no reason why they will not ultimately be installed in this industry.

Commissioner WEHLE. Now, to what extent have they been developed in the electrical industry? And in what way?

Mr. COOKE. Well, you take the cost end I have already referred to, the very satisfactory development of cost keeping on that Penn Central property. But I know of no utility where the standards of performance of the management other than costs have been developed.

Commissioner WEHLE. Well, when you speak of costs, do you not take in all the activities of the company, including those of the management?

Mr. COOKE. Yes; but a company might have a very low unit of costs when it had something to do, but if it did not have enough to do to keep it busy more than half the time, in such an instance, unless the management could bring an act of God as an excuse for it, they would be to blame. I mean in large silk mills or some metal-working concerns that I know of, they set a standard of being busy 80 per cent of the time, getting out a certain product which their plant is designed to get out. It is somebody's fault—they may not have orders, they may not have materials, the routing may be so inefficient that the stuff they want is not at the right place at the right time, or inefficient labor—there are a thousand and one reasons why the plant should remain idle in those industries. Now, idle capital is not supposed to earn any more than idle labor, and it becomes an expense to be absorbed in another way.

Commissioner MEEKER. May I interpose a question at this point? Do you mean in getting at the cost accounting that you wish to account for every item of expense, and that then it is up to the management to see what items of expense may be reduced by more efficient management? For example, labor costs: You spoke of them. You spoke of the labor management in the street-railway industry as being peculiarly inefficient, even judged by the rather inefficient standards in labor management in other businesses in this country. Is it your meaning that only by having a sensible, sane cost-accounting system can we determine what savings are possible in the management of labor and in all other matters connected with the conduct of the street-railway business?

Mr. COOKE. Absolutely; every unit of service. Now, when I say unit of service, I believe I mean something different, something more ultimate, a smaller subdivision; but every unit of service must be—the cost of that unit of service is dealt up by 10 elements, and under any particular system, any one of those 10 you should be able to further subdivide and, perhaps, one of those subdivisions must still be further subdivided, and you must have a standard of nomenclature, so when you refer to a unit of service on this road you mean exactly the same thing as you mean by the same unit of service on other roads, and you place alongside of that other the 10 or 100 or 1,000 subdivisions of that cost to see who is making the best record.

Commissioner MEEKER. Do you think that the labor costs—and they make up a very considerable part of the expense of conducting the street-railway business—do you think the labor costs have been disproportionately high in that business?

Mr. COOKE. I really do not know.

Commissioner MEEKER. Taking the expense of labor turnover, so-called, has that been unnecessarily great; do you know?

Mr. COOKE. No; I really do not. I do not believe they utilize—and there again it is only a question of degree—no industry has utilized the initiative of the workmen. I do not think the initiative of the workmen has been used practically at all in this industry.

Commissioner MEEKER. Do you suggest some scheme of participation in management by the employees?

Mr. COOKE. That would seem to me to be a very easy industry in which to introduce such participation.

Commissioner MEEKER. Do you care to elaborate that point further, and give briefly some outline of such a plan?

Mr. COOKE. Well, one of the most intelligent handlers of—I do not like to use that word—one of the most intelligent leaders of street-railway labor explained to me recently that his feeling was that, if they would hire and get all the help they could in studying the problem of platform men so that they knew what constituted a good motorman or a good conductor and then trained their hundreds and thousands of men so that they came up to that standard, they were doing all that they should in the cultivation of their labor. Now, it seems to me, that is just getting at it in the wrong way, and that you are handing down from the top all the information about the job and more or less making men intelligent automatons. I believe that, where you have so many employees that are doing one

thing, it ought to be relatively easy to tap their information in such a way that would make the information they have—the observations that they make in their day-to-day contact with the job—one that would constantly change the jobs of motormen and conductors, and that they would not see a street-railway company, as has been frequently in the past, going along for a year or two making mistakes that are quite obvious to people that patronize the lines. In other words, I think it is going to be possible to organize the men so as to obtain from them a much larger initiative. Then I think that the men ought to be given the opportunity, not of criticizing the management—I do not mean that—but it ought to be up to the men to request of the management—

Commissioner GADSDEN. They have never surrendered that privilege, have they?

Mr. COOKE. Well, that is what I hope is of the past, Mr. Gadsden. But it ought to be possible for the men to call on the management for any sort of reports that they thought would help them in the conduct of their affairs. This very matter of labor turnover, intermittency of employment, and that sort of thing; I think that men are entitled to have that information, and I think they are entitled to that type of leadership which feels that it can not get along without having that information. I do not know whether it is true in this industry, but you take in practically every industry I am associated with—it is not unemployment that is the bane, it is the discontinuity or intermittency of employment after you have got a job. There are 100 different reasons why people, after they have got a job, are not allowed to work full time. I think the workers in any such establishment are entitled to know what that record is; whether this employer keeps his employees engaged 70, 80, or 90 per cent of the time; and they are entitled to see and analyze the reason for their failing to make 100 per cent. Say a manager keeps his people going 66½ per cent of the time, which is probably a fair per cent for the men's clothing industry, which is considered quite seasonal; I think the men are entitled to know how that 33½ per cent is distributed, how much is due to not having orders, how much is due to not having the materials, how much is due to sickness, and how much is due to other causes. When you begin to go after operating figures and costs it seems to lead on and on; there is no stopping. Now, we recently, in one factory that I was connected with, put in six months on half time, and it led finally to an—

Commissioner MEEKER. Just elucidate that. Six months steady half time?

Mr. COOKE. No. From the 1st of January this year to the 1st of July this particular group of 2,500 employees only worked three days a week; and not only that concern but other concerns in the same line suffered through not having material. A committee was appointed of the employees, very largely at the instance of the men, to wait on the people who made the raw material that we used. We did not get our raw material on account of a strike in that industry, and our people waited on them and told them that we were hereafter not without interest in strikes in their industry, because if they had strikes in their industry and could not give us an even flow of raw material, we were not able to keep our people engaged.

In the same way I feel that in any industry the workmen can be very useful in pressing on the management of the company; and that is their legitimate share in the management—pressing on the management for the data with regard to any condition which affects the efficiency of that company. And if the management does not initiate it, the men ought to. And that is another example of what I mean by participation. Now, as we take these first steps in participation, I am optimist enough to believe that other ways will open up and that you are going to bring the management and the men together, not because they work short hours, not because they pay high wages, but because you really have made their work a mutual problem.

Commissioner MEEKER. As a matter of fact, the so-called turnover of labor in the street-railway industry, platform men and other men—shopmen, too—has been low. Have you any opinion to explain that? It has been low as compared with iron and steel and coal mining and any other industry that I have studied.

Mr. COOKE. Well, it was very high, of course, in Philadelphia up to the time Mr. Mitten came there. He told me——

Commissioner MEEKER. Not particularly.

Mr. COOKE. Well, of course, it was for the immediate period ahead, when there were strikes and acute labor troubles in that company. But he told me, or one of his men told me, some time ago that his turnover was only 8 per cent. Of course, when people talk about turnover you know sometimes they mean one thing and sometimes another; but that is exceedingly low. I have never heard of a lower figure than that, if it is true.

Commissioner MEEKER. It has been even lower than that at times on that particular street railway, but I should say the average for the country would be somewhere between 20 and 35 per cent, as compiled by my own bureau, which used the uniform-standard method which makes the figures comparable among the different lines.

Mr. COOKE. I believe 8 per cent is too low a turnover. I do not believe you are promoting enough people out of the business.

Commissioner MEEKER. Well, the reason I bring that up is——

Mr. COOKE. I think if they have a turnover of 25 per cent there is very little to criticize in that.

Commissioner MEEKER. Is it not usually accepted as an indication of understandable labor conditions, where the turnover hovers about 100 per cent?

Mr. COOKE. Oh, yes. That is the average for this country. I am convinced that the average American gets a job once a year.

Commissioner MEEKER. The street railways have been far below that in normal times. Of course, during the war the turnover has been greatly increased. Does that indicate that the street-railway companies have been lax in their labor policies; that their labor policies have been behind the labor policies of business in general in the country?

Mr. COOKE. I would not know how to account for it without investigating it.

The CHAIRMAN. Mr. Cooke, the hour of adjournment has arrived and one of the commissioners desires to cross-examine you further. Can you be back at 8 o'clock this evening?

Mr. COOKE. It is pretty cruel. I will have to do it. I had another engagement.

The CHAIRMAN. We will stand adjourned until 7.45 o'clock to-night. Before retiring please let me make this announcement. Tomorrow and Thursday will be devoted entirely to the labor program. We have two other witnesses for to-day, Mr. Purdy and Mr. Delbridge, and we will try to hear these witnesses to-night, or get along as well as we can.

(Whereupon at 5.05 p. m., an adjournment was taken until 7.45 p. m.).

EVENING SESSION.

The CHAIRMAN. Who is your first witness this evening, Mr. Ogburn?

Mr. OGBURN. Mr. Delbridge, I believe. Mr. Delbridge represents the Citizens' Referendum League of St. Louis, who telegraphed to us asking if they could present certain views on this problem; and they have sent us their representative with his credentials, Mr. Delbridge.

The CHAIRMAN. We shall be very glad to hear from you, Mr. Delbridge.

Mr. DELBRIDGE. Thank you.

STATEMENT OF MR. C. L. DELBRIDGE.

Mr. DELBRIDGE. Mr. Chairman and gentlemen, I have been doing auditing work for the owners of street railways and steam railways for about 35 years. However, for the last 15 or 16 years, my work has been devoted mostly to compiling and tabulating mathematical books that are used by auditors instead of doing the actual auditing work myself. There are four or five of my books, and I will say, without any spirit of apology on the one hand or boastfulness on the other, but merely as a statement of fact, that I am the author of over 100 mathematical books that are used by auditors in this and similar lines of work.

The CHAIRMAN. Are you responsible for that big red book over on the table there?

Mr. DELBRIDGE. Yes; that is one of the 100. That is used by railroad people in prorating reducing locals, figuring passenger-mileage, ton-mileage and things of that kind.

As I understand it, the question before this commission is to see if it is possible to find some solution of the problem that confronts the people of this country in regard to their street-railway matters.

I am sorry to say that I have listened to a great deal of testimony in the last few days, and the burden of virtually all of that testimony has been in a different light altogether from what I assume this commission really wants to hear. I do not think this commission has been appointed for the purpose of finding how to solve the problem as to what fare will bring the largest income nor what is the most effective method of driving the jitneys or any competition to street-cars out of business. Therefore, I shall not devote any of my time to discussing that subject.

What I want to do, and I assume what this commission wants to do, is to find a solution of the street-railway problem—how it is possible to conduct this business in such a way, that it will give satisfaction to the people whom it serves.

As an actual matter of fact, the conditions that confront the people in the street-railway business of the country has been foreseen for 20 years. Twenty years ago, as far as I can recollect, in the year 1900, the street-car company of St. Louis, which is capitalized at \$104,000,000, sent for me and they said: "Mr. Delbridge, will you accept the position of auditor of the street railroads here?"

We discussed that for about 10 days or a week and so on, and I finally told them: "Gentlemen," I said, "I can see that your idea is to get me into your office to do your clerical work of auditing. I can not be worth one cent to you in that capacity, where I could be worth a dollar to you in an advisory capacity. Now, if you want me to help arrange your schedules and discuss those problems with you, I shall be glad to take the place; but if you want me to do the clerical work in your office, I can not afford to accept the place." They asked me why. They said, "If you get a certain amount of pay what do you care what you do?" I said, "For this reason: In a reasonable time—it may come within one year, or it may be 20 years coming—but the people of St. Louis, a reasonable portion of them, are going to catch on to what you people are doing out here; and when they do, they are going to come out here and lynch every one of you; and when that time comes, I don't want to be in your offices." I told them: "If you don't put your business on a legitimate basis and conduct it as a business institution, the time will come when it will be swept out of existence, just exactly like slavery was swept out of existence, and it ought to be."

That ended the negotiations, and I never heard anything from them.

What you want to do is to find out what it costs to haul a street-railway passenger. That is a much more simple problem than a person would assume at first glance. Taking the sworn statements of the street-car companies—for instance, according to their sworn statements—the average cost of hauling a street-car upon the various streets of the cities of the United States is 20 cents per car-mile; sometimes it runs 18 cents, 19 cents, 20, 21, or 22 cents, and I believe the highest figure that I have ever seen claimed was in Pittsburgh, where one year it was claimed that it went to 23 cents.

Of course, this data were gathered before the war—that is previous to three or four years ago. Now, it is probably a little higher. In fact, I believe in Philadelphia the gentleman here the other day testified that it was 27 cents.

Then they tell us and swear, under oath, and I can give you the date, if the commission wants it, where it cost them 20 cents per mile to haul a street-car through the streets of the city, and then the same officials of that same company get up and make the statement, as I have heard them repeatedly do under oath, that they can not figure how many cars to put on the streets in order to give the people a reasonable service and seats, because we don't know how many people will be standing at a certain corner, and anyway, it would make very little difference, because the average person does

not object to standing in the street-car, because the average ride is—I have heard them make the statement—seventeen-twentieths of a mile or nineteen-twentieths of a mile, and also about a mile.

When you realize, according to their own sworn statements, that they claim they haul the average passenger 1 mile, in some instances they have made it nineteen-twentieths of a mile, and according to their own sworn statements again, if that costs them 20 cents to haul a car a mile, then when you point to a car that will seat 50 people, with every seat occupied and 50 people standing, paying 5 cents apiece, that gives them \$5 per car-mile receipts against a cost of 20 cents per car-mile, according to their own oaths—gentlemen, there is absolutely no explanation for such a statement as that. We know that that money is not expended in hauling those passengers.

That is only one feature. When you realize that any steam railroad in the country will haul a passenger train for \$1.50 a train-mile with 10 coaches, which makes 15 cents a car-mile, and when you realize that it costs twice as much to build and equip the average steam railroad as it does the average street-railway line, and that a coach will seat 70 people, and that they can be hauled a mile for 15 cents, we see how absolutely absurd and ridiculous are their statements that there is no profit in their business. For instance, take freight: According to the reports of the Interstate Commerce Commission, the gross receipts of the steam railroads of the United States are 9 mills per ton per mile. In other words, for every 2,000 pounds of dead freight that the steam railroads haul, their gross receipts are 9 mills—a little bit less than 1 cent.

If freight—that has to be loaded and unloaded on the cars, and trucked across the platforms, and be receipted for, and the company has to be responsible for, carried to its destinations, the seals broken, and trucked across the platforms and receipted for there—gentlemen, if 2,000 pounds of freight can be hauled for 9 mills, do we not see how absolutely absurd and ridiculous is their contention that they can not haul 2,000 pounds of freight that loads and unloads itself, and that does not have to be receipted for, for 26 cents per car-mile, or 80 cents per car-mile? It is absolutely absurd.

Now, what is the solution of the problem? The Citizens' Referendum League* of St. Louis have worked on that question for just about a year, and we have arrived at this conclusion: There is but one solution of that problem. If there had been any other solution of the problem we would have found it.

At this point I want to just digress a little bit with something which really bears on the subject. Remember, up to 10 years ago there was a great commotion throughout our country, from one end to the other, about the extortions and the infamies practiced by the express companies. Conventions were held and Congress appointed a commission—or I believe it was the Interstate Commerce Commission that appointed a committee—to hear testimony, just exactly as you gentlemen are hearing testimony now, with the idea in view of remedying the evils.

I was called before that commission, and I want to say to you gentlemen that you represent now here one of the most important commissions and you have got the most important question to solve that

has ever been handled in this country since the days of George Washington.

The Interstate Commerce Commission settled that problem simply by extending the services of the Post Office Department to take in the parcel post; and for the last eight or nine years we have nobody ever complaining about express. It has solved the problem absolutely.

We must do the same thing with the question that is before us—the street-railway business.

Now, gentlemen, according to the sworn affidavits of most of the street-railway officials of the country, whom I can name if you, would like to have them, the average cost of building and equipping a street-railway line in St. Louis, according to sworn reports is \$16,000 per mile.

Now, if a street-railway line can be built and equipped for \$16,000 a mile, what is the solution of the problem?

Just simply have the city, the State, or the Nation—just simply pick any city and go down in the suburbs where they need street-car service, go to some streets that have no street-car service, and just simply build a mile or 2 miles or 3 miles or 4 miles of track, and after they build that track, put on a car or two cars or three cars and employ a motorman, and put the motorman on the car and say to that motorman: "Here, you make a round trip every 5 minutes or every 10 minutes or every 15 minutes or every half hour, as the case might be, and let a person get on the car and ride through, as long as they please and where they please and when they please, and do not collect any fares at all."

A person at first glance would assume that that is giving something for nothing, but it is not. That motorman comes down to the city hall at the end of the month and gets a check for his month's pay, just like a fireman or a school-teacher does.

Why do we do that? We do not want to give anything to anybody for nothing. I think it is a bad idea. We do not want anything for nothing. But, under the conditions that prevail to-day throughout the legislatures of this country from end to end, and throughout the city halls of this country from end to end, this street-car business has become so nefarious and so iniquitous that it is absolutely necessary for the person to pay 5 cents or 6 cents or 7 cents or 8 cents or 10 cents in order to get a street-car service that it costs one-half of 1 cent to render.

That is all there is about it. We must get rid of that. Now, I was connected with the auditing department some years ago of one of the largest systems in this country. It was generally understood—the orders came into the office—that this request was made by old man Russell Sage himself; of course, that part I knew nothing about; but anyway the request came in: "We want you men in the auditing department to give us a solution of the street railway and the interurban problems." Now, this was foreseen by Russell Sage 25 years ago. "Conditions are not what they ought to be and we want you to find what is the solution." After a year's investigation we reported this, that there is no system that has ever been devised of collecting street-car fares on a street-car, where each person gets on and he gives his money to the conductor and the conductor has got

to drop it into a box or a slot somewhere and register it—there has been no system devised that would not cost more money to audit that 5-cent fare dropped in the box than it does to render the service for which the fare is paid. Therefore, the proposition is to afford car service through taxation. Let us pay our car fares through the city hall.

We reported this, that this could be done with an unlimited car service, that it could be put on in any city regardless of the fact whether that mileage was 1, 2, 5, 50, 500, or 50,000 miles long; let anybody get on the car, whether it winds all around the city or a State or slap across the continent from Boston to San Francisco. Just simply say, "Now, here, these cars are for the people. You get on and ride free whenever you want to," and if it could be done that way, we reported that the average ride would never equal 1 mile and the average cost of operating that service would never exceed one-half of 1 cent.

Under prevailing conditions we have got to pay 10, or 8, or 7, or 6 cents in order to get what can be given to us for one-half of 1 cent. And, gentlemen, that is the cause of the unrest of the people in this country.

Now, a man might say "Here, what right have you to assume that they would not ride but a mile?" I can prove that to the satisfaction of anybody. For instance, on the Manhattan Elevated Road a man can get on at Rector Street, and between Rector Street and the northern terminus there are probably 25 different stations where the northbound and the southbound trains are served by a single platform. Of course, there you pay your fare when you get on the platform and not when you get on the cars. Therefore, a person could see-saw up and down the Manhattan Elevated road for a month or a year by the payment of one single fare. We auditors took that question up and we could never figure out just exactly how few people did it. They can get the service free, but simply because they can get the service free they did not take any advantage of it. And practically every man who goes to New York does that once to see if he can do it, but that is the extent of his riding free.

Now, we will take another angle of the proposition. We have in every large city these office buildings. We have in St. Louis buildings 20 stories high with free elevator service. Those are built for business purposes, for the purpose of earning dividends on the money invested in the buildings. Those gentlemen who put up those buildings—the first proposition—they go to the auditors and ask, "Can we erect such-and-such a building which will pay us, invest a certain amount of money that will pay a certain profit?" Then they have to figure out what that elevator service will cost in those buildings and the management puts on a tax, probably of 50 cents or \$1 a month extra for each office in the building to cover the cost of the elevator service that will be rendered to their patrons.

A man who has occasion to go up and see a man on the tenth floor steps on the elevator at the street floor, rides up to the tenth floor, gets out and transacts his business and comes back and steps on the elevator and rides down and steps out and thinks no more of it. Gentlemen, as a matter of fact, it costs just as much money and the average is practically the same to haul a person in the average elevator of the buildings of the United States as it does to haul a person

on the average street railway of the United States. For instance, you take a dead straight lift, say, of 10 feet, the average floor; it takes as much power to carry that man up 10 feet as it does to push him a block over the rails of the street-car lines and the average cost in each case is .7 of 1 cent. The cost of rendering the elevator service and also the street-car service is .7 of 1 cent.

Now, they tell us "Well, we can not do that for the simple reason that our gross receipts are so-and-so and our expenses are so-and-so and we have enormous overhead expense." I have had a great many street-railway reports submitted to me for analysis. I had to go into those reports, and I want to say that they are pyramided and padded to the absolute limit of an auditor's ability. And it is astonishing to what an extent they can go. For instance, a month ago I was put on the stand as a witness down here in a hearing in St. Louis.

Now, those men swore that their property was worth \$104,000,000. They made that statement there. They claimed though that "if you will give us"—asking the commission—"a fare of 8 cents, it will enable us to pay a 6 per cent dividend upon a \$60,000,000 valuation." The commission had previously fixed that valuation at \$60,000,000. They were demanding a fare that would pay all the expenses and leave 6 per cent after all expenses were paid for the owners of stock and the bonds.

I took a certified copy of their sworn statement made by the same officials for the same company on the 7th day of May, 1914, where they swore that their property was worth \$6,783,973. In other words, they are asking that commission—making a sworn statement that their property is worth \$60,000,000—where on another sworn statement, which was held right opposite to it, the same officials swore it was worth just about one-ninth of \$60,000,000. Now, when you come to a proposition like that, there is absolutely nothing that can get around it. That is their sworn statement.

We will take another feature of it—

The CHAIRMAN. What was the sworn statement of the first figure for?

Mr. DELBRIDGE. They swore that they had out stocks and bonds to the amount of \$104,000,000.

The CHAIRMAN. Now that \$6,000,000 figure?

Mr. DELBRIDGE. They swore that the property for taxation was worth \$6,783,000. But now where the \$60,000,000 came in, the commission had rejected their \$104,000,000 affidavit and placed a value of \$60,000,000, that they were entitled to those dividends on.

Now, according to their own sworn statement held right up at them in parallel columns, for every \$100 of stock and bonds that they had out those men had invested \$6.52½ in the property and had stuck down into their boots the difference which was just simply \$93.47½ on every \$100 invested. Now, that is their sworn statement, that is all there is about it.

Now, gentlemen, where does this money go?

The CHAIRMAN. Do you believe either one of those sworn statements?

Mr. DELBRIDGE. I know that this sworn statement of \$6,783,973 is absolutely correct, because I was paid \$450 one summer by one of the owners to make an analysis of that statement.

And then again, a few years before that, in the condemnation proceedings where one line wanted the right to go over the rails of another line for a few blocks, another manager who had been ousted swore that the property had been built and equipped for \$16,000 a mile, which tallies with this \$6,783,000.

Now, we have come to this feature: Where does this enormous amount of money go—their gross receipts?

Now, when you come to auditing your company's books, gentlemen, I want to be perfectly candid with you. I have been an auditor for 35 years, but for 15 years I have done no special work that I could get out of—only for old customers. I have simply been preparing material for other auditors to use. But I want to be perfectly candid with you. Whenever a company wants a certain statement it just simply writes down what it wants to show, and it hands it to the auditor, and the auditor goes to the books and he makes it fit whatever that company wants. That is all there is about it. In other words, one of the best auditors that I ever knew used to come and spend a good deal of time with me at the Broadway Central Hotel in New York. And he uses my books, too. I says to him, "Mr. Davis, what is the first thing you do when you check up a company and settle the books?" He looked at me and he said, "Delbridge, you know as well as I do, but if you want to hear me say it, I do not object to making the statement at all. I can take a set of books two years old, and a pen, and a bottle of ink, and make those books show anything you want them to show, from a 50 per cent loss to a 50 per cent gain, and I will take my statement on the stand, subject to any cross-examination on earth and there is not an examiner who can go behind me and point out an error in my report, for the simple reason that there will be no error there. All he can do is to dispute my valuations, and when he does that it is merely a difference of opinion."

Now, where does this difference between what the passenger gives and what it costs to render the service go? Where does that money go?

It is an easy matter to solve that problem. I will say this—that there is not an auditor in the United States but who can take a set of books and he can fix them up in such a way as to make any report he wants, and he can do it in such a way that he himself can not go back over those books two weeks after he did it and point out the discrepancies, unless he kept a record of where he made the discrepancy or from bare memory.

It is like a man walking across the river on the ice. A good expert could follow him by his tracks on the ice, but after a few days the sun comes out and melts the tracks away and he could not himself follow his trail unless he did it from bare memory.

Now, we will come to this angle: Where does this difference in money go to? Now, these troubles of the street-car companies of the United States started really in St. Louis in 1910. Lee Merriwether in St. Louis ran for mayor on the municipal-ownership ticket in 1901. In that election there was a great deal of crooked work done in order to count Merriwether out, but in the 90 days of that campaign we educated the people of St. Louis to the enormous profits in the street-railway business to such an extent that notwithstanding

the fact that Merriwether was counted out, within one year from the day those polls were closed the officials at the city hall went to the street-railway representatives and they said to them, "Here, you have been fooling us about this thing. The profits in this business are more than you have been pretending, and your taxes are going to be increased \$400,000 a year," and those street-railway officials accepted it without question and paid the additional taxes of \$400,000 a year more than they had been paying previous to this campaign.

Not only that, but just about that time Mr. Folk, who lives here in Washington now—he is an attorney, and he was attorney for the Interstate Commerce Commission—he was on the ticket there that was counted in, or elected, and Mr. Folk was a clean, straight man and there was some crooked work done, and out of 19 members of the board of aldermen—Mr. Folk simply had the prosecuting attorney fasten a ball and chain around the ankles of 18 of those men and sent them to the penitentiary at Jefferson City for accepting bribes from street-car companies; 18 out of 19 of the board of aldermen of St. Louis were sentenced to the Jefferson City penitentiary by Folk. Of course, all of them did not do time; some of them escaped on bond, but 18 were sentenced there. So that attracted the politicians to the enormous profits in the street-car business, by Folk's prosecution. They admitted that every year they would get a check from the street-car company for \$5,000, and they were expected to give the street-car company whatever legislation it wanted, and they did.

THE CHAIRMAN. Did each one of those men admit they were paid \$5,000 a year?

MR. DELBRIDGE. Yes, sir; each one of them admitted on the witness stand that they were paid \$5,000. The nineteenth one would not accept it. He was sent a check for \$5,000, but he refused to accept it.

COMMISSIONER GADSDEN. It was not enough?

MR. DELBRIDGE. Well, no; he told the people how it was; but anyway, just a little while after that there was what they called the central traction franchise bill which came up and the officials saw just how much this thing was worth; and there was one case where I believe he was a member of the city council, a little higher than the alderman, and in some kind of a proceeding after that he got on the stand and made this statement:

"They came to me," mentioning the name, "Mr. Snyder," he said. "Mr. Snyder came to me and says, 'I will give you \$50,000 if you will vote for that bill.' I told him all right. He gave me the \$50,000 and I put it in my pocket. I kept the money in my pocket for four or five days and I took it back to Mr. Snyder and I handed it to him and I says, 'Here, I will not vote for that bill for \$50,000. Here is your money; take it.' Mr. Snyder says to me, 'What will you vote for it for?' 'Well,' I said, 'I consider my vote worth \$100,000,' and he admitted under oath that Snyder said, "'All right; vote for the bill and I will give you \$100,000,' and a few days later when the measure came up I voted for the bill."

Now, that is only one angle. If you will take the Associated Press dispatches of the 18th day of April, 1919, this year, you will find that Mr. George F. Thompson, who was the chairman of the street-railway committee of the New York Legislature, made the statement before the legislature that "I was offered \$500,000 for to vote

for the bill giving the street-car company the right to raise their fare from 5 cents to 6 cents," and in a day or two later the statement was made that the man who offered Thompson this bill was paid \$50,000 for approaching him with the \$500,000 bribe.

There, gentlemen, is where these enormous amounts of money go, and those are the conditions that exist.

Now, we will take another little angle to the case. In this hearing down here that was held a month ago in St. Louis, the street-car company made this statement: "We have a great deal of litigation. Our attorneys who are retained by the year find it impossible to attend to all our litigation and we have to employ outside attorneys; and on an average it costs us \$500 to defend every suit that is filed against us." And at another time they made the statement that one-half of the litigation of that county was street-railway litigation. Consequently, according to that, the courthouse hangers-on and the courts managed to get \$500 for every bill that is filed in a suit against the street-car companies. Therefore we can not expect any help from the courts of our country in dealing with the situation, because directly and indirectly they get \$500 for every bill filed against the company; therefore it complicates the situation a great deal.

Now, to simplify the situation, what can we do? It is not a practical thing to try to fix a valuation on anything, because where there is an inclination to dispute the valuation it can be extended indefinitely, and the thing to do is not to bother with existing lines, not to condemn them, but to absolutely ignore them. Just simply build your 2 miles, or 3 miles or 4 miles or 5 miles of track in the suburbs and extend it toward the heart of the city; and after you have done it simply put on your car and let the motorman—have no conductor at all—let the motorman run the car, and on the average, no matter what the mileage might be, it will only cost through the taxpayers one-half of 1 cent to render that service, and we will have infinitely better service than we have now, which is costing 6, 8, and 10 cents.

Commissioner WEHLÉ. Where do you get the figure one-half of 1 cent?

Mr. DELBRIDGE. I will tell you where we get that. Now, Mr. Wehle, when you count that according to the street-car company's own statement it costs them 20 cents a mile to haul a street-car, and that the average haul is seventeen-twentieths or nineteen-twentieths, or as they express it sometimes, about a mile, when we know that an average car will seat 50 people and that frequently 50 people stand in the car—that gives 100 passengers. Now, if that car costs 50 cents a mile, that would be exactly one-half of 1 cent, if there are only 50 passengers, assuming that there are 50 in the car—

Commissioner WEHLÉ. You mean that if there are 100?

Mr. DELBRIDGE. Yes; if there are 100.

Commissioner WEHLÉ. But there are not 100 in every car.

Mr. DELBRIDGE. No; there are not, by any means; but when we recognize the fact that when you make your comparison there under existing conditions, there are enormous overhead expenses—for instance, the conductor is paid, and under a free car service there would not be any conductor at all, because you would only have your motorman and the electricity.

Commissioner MEEKER. Why pay the motorman?

Mr. DELBRIDGE. To operate the car and stop the car.

Commissioner MEEKER. Why not let the people run the car?

Mr. DELBRIDGE. Well, that part, I suppose, would be impracticable.

Now, when we know the cost of hauling a steam car per mile, we know that 3,000 pounds of dead freight can be hauled 1 mile for 9 mills, the gross charge. We know very well that under proper conditions freight that loads and unloads itself ought not to be taxed 96 times as much as that kind of freight.

Commissioner WEHLE. Does this 50 cents per car-mile represent the cost of operating the street-car?

Mr. DELBRIDGE. What is that?

Commissioner WEHLE. Did you say 50 cents per car-mile represents the cost of operating the street-car?

Mr. DELBRIDGE. I say 20 cents a mile is the average cost according to their reports, but in their reports there is an enormous amount of illegitimate expense that ought not to be there. Ten cents per car-mile would do the work. This gentleman from Terre Haute to-day gives the average cost of hauling a car a mile there as only 10 cents in Terre Haute.

Commissioner MAHON. Where do you get your figure of the average of a passenger riding to be 1 mile?

Mr. DELBRIDGE. I get that from the sworn report made by Capt. McCullough, who at that time was president of the street railroads in St. Louis, where he frequently went before the commissioner and made this statement under oath that the average passenger does not object to standing in a street car because, on an average, he rides only about a mile—sometimes he would qualify that by saying a little bit less than a mile, and sometimes he would make the statement of seventeen-twentieths of a mile—and that it was so short he did not object to standing.

Commissioner MAHON. The average here as shown in the Boston case was 4 miles.

Mr. DELBRIDGE. I asked that gentleman that question there, but the truth of the matter is that he admitted that in that case of Boston it was very exceptional, that practically all of the people there lived away out, and that they rode long distances. But, your honor, counting it 4 miles—my gracious, if a car can be hauled 4 miles for 80 cents, why under heaven's sun should the people pay—why should 100 people pay \$10 for the privilege of being hauled 4 miles? In other words, the company gets \$10 for what they admit it costs them 80 cents to perform. That is what is bringing about this dissatisfaction among the people of this country. They realize these infamous conditions that have been gradually growing up for the past generation and they are going to do away with it.

The CHAIRMAN. You may proceed, Mr. Delbridge.

Mr. DELBRIDGE. The question was raised here—I believe it was by the gentleman from Lynn—would not the people ride too much if they could ride free? Would they not stay on the cars all the time?

Well, we have satisfied ourselves absolutely on that question in the Referendum League of St. Louis.

We did it in this way: We went down to the elevators in the buildings, and asked the men who were operating those elevators.

We said to them: "You don't charge anything for rides in these elevators. Don't you find school boys and girls coming down here and riding up and down in the elevators because they can ride free?" One of the men says to me: "I have been operating this elevator for nine years, and I have never known a person to get on this car and take an unnecessary ride." There was only one instance of that kind that ever came up. There was a lady who came in and wanted to see a man in one of the offices upstairs in the building, and the man was not there, and she got on the car and said, "I will just simply ride downstairs again and wait for him," and the elevator man said, "You can just stay on the car and ride up and down with me, if you like, until he comes." She said, "No, I don't want to do that, I would rather wait here. I am afraid some accident might happen."

That is the only case where anybody was ever even invited to take any advantage of it, and she refused to do it.

Now, they speak of local conditions. They say that the conditions here are different from what they are over there, and therefore no rule and no solution of the problem can be arrived at, simply because this town happens to have a hill or that town over there happens to have a hill that is not quite as high. Gentlemen, that is all rank nonsense. There is not a single bit of truth in it. If that is true, why does the Interstate Commerce Commission fix passenger rates at a certain amount per mile, regardless of what territory it runs through, almost. It does not make any difference whether the country is mountainous or whether the country is prairie.

If we all get on this free proposition of street-car service, which is the only solution of the problem—it can not be solved in any other way; I have been paid a good deal for working that thing up for 30 years, and if there was any other solution, we would have arrived at it a long time ago.

This man who was on the stand as a witness here told us that conditions in Fall River are such that it is necessary to have a 10-cent fare, but 3 miles away, at New Bedford, the conditions are such that it is only necessary to have a 5-cent fare. Gentlemen, that is rank nonsense. I have been in both places, and it is simply a question of management.

If the street-car people had just simply said, "We wash our hands of this matter," and if they had gone before the people and said that the people should pay the fares, to pay the dividends on the money invested in the property, there never would have been anything of this kind come up, and the people would be entirely satisfied. But under the prevailing conditions, they are so deep in the mire that it is absolutely impossible to arrive at any solution of a problem that they have anything to do with.

There is no compromise possible there, in my opinion.

Commissioner MAHON. You do not think welfare would work it out?

Mr. DELBRIDGE. No, sir; I do not.

Commissioner GADSDEN. This seems to be more of an auditing proposition than a managing proposition from your standpoint, does it not, Mr. Delbridge?

Mr. DELBRIDGE. No, sir. Let the management submit that proposition, a proposition of this kind to the auditors. The railroad companies do it. They leave those questions to the auditors.

Now, they make the argument this way, that the street-car companies pay more money than the jitneys pay, and consequently the jitneys ought to be driven out of business. The street-car companies do not pay a bit more percentage than the jitneys. Both, I believe, are taxed absolutely fair and square.

Why in the world should this commission listen to arguments upon the ground that because we pay more taxes to pave the streets, you must devise some scheme that will enable us to put the jitneys out of business? In other words, it would be just as if a grocer should come here and say: "That man over there is a lawyer, and he has an apple tree in his back yard. You make him cut down that apple tree, because if he raises apples on that tree, I will not be able to sell him those apples." Or, "if he has a bean bush in his back yard, or a potato vine, make him quit raising potatoes, because I will not be able to sell him potatoes, if he raises them." There is just about as much sense and justice in that as in the other proposition.

Now, as far as the purchase of any street railway is concerned, their stock is so hopelessly watered—on an average I do not doubt but that it is watered at least 8 to 1. For instance, in my little pamphlet there, the Catechism of Street Railways—of which, if you gentlemen have not got copies, I shall be very glad to furnish them to you—I make the statement that the average amount of stocks and bonds issued by the street railroads of the United States is \$39,000 a mile. I got that from the Railway Age of Chicago, which is considered an authority in those lines. Since I have printed that, however, I have heard the statement that the census report makes it \$111,000 a mile. If the average amount of stocks and bonds issued by the street railroads is \$111,000 a mile, then the average cost, according to the best and absolute evidence is, \$16,000 a mile. In other words, they have got, on an average for every \$16 they have invested—they have got out \$111 of stocks and bonds.

Therefore that thing is so hopelessly tangled that it would be impossible for any commission to arrive at any value that they could not hold it up in court for the next 30 or 40 years.

That same thing came up in connection with the parcel-post business, when we were fighting for the parcel post here. The railway officials and the express companies were, of course, all the same thing. They made an awful argument this way: That the Government could not issue enough bonds to buy the express companies, and therefore there was no use talking about the parcel post, because the parcel post could not be operated unless the Government owned the express companies; and the express companies and the railroads, being so closely identified that, in order to buy the express companies it would also be necessary to buy all the railroads. That was the argument they made; and they fought us and fought us on that line for years, but we got the thing through. The Government did not buy a dollar's worth of the express material. It did not buy a horse and it did not buy a wagon from them at all. It just simply went ahead and let the express companies run the business or go out of business, as suited them.

That is the solution of the street railway problem. No city, no State or Nation should attempt to buy one dollar's worth of rolling stock or any equipment whatever of any existing company. If they want to sit in, let them sit in. We have nothing to do with that. We have not got to protect their investments. It is their own lookout. If they want to sell out or don't want to sell out, that is a matter for them to decide. But we have got the right to lay our rails on streets, even if they have their rails there. We can just parallel their rails, and have them four or five inches apart, and run our cars, and run them free.

I was astounded to hear this statement made on the stand—a gentleman made the statement that—I believe it was at Boston—that they had 100 per cent rides at the 5-cent fare, making \$5, but when they raised the fare to 10 cents they got \$6; in other words they got 60 per cent of the passengers at a 10-cent fare, which gave them at 10 cents, \$6. In other words, they deliberately forced 40 people to subject themselves to disease by reason of exposure to the weather in walking in order to get \$1 more fare—in other words, to raise their gross revenues from \$5 to \$6.

That is wrong, and it is just such things as that that have got this country torn up like it is to-day.

I will say this: In the last 10 years—there are about 600 civic organizations in St. Louis, and there has not been a single fortnight, a period of two weeks, when I have not been invited to go before some of those civic organizations, or a committee appointed by those civic organizations, and detail the data that I am giving you here; and that is one thing that has raised the row there in St. Louis—the absolutely false reports that those fellows make.

For instance, they issued their report—report after report, and a month ago they issued to the auditors instructions: "We have to make a report to the commission to get this 6 per cent on \$60,000,000 valuation. You make your reports so that we can show a cost of 7.58 cents to haul a passenger in St. Louis." And they did. The auditors took those reports, and when you figure it up they had 7.58 which it cost them to haul a passenger in the city of St. Louis, when the average passenger on a car knows that it cost that company 20 cents per car-mile to haul the car, and yet they insist on him paying 8 cents, and putting 98 or 99 other people in that car. Gentlemen, it is going to cause trouble, and it ought to cause trouble.

The street-car owners of the United States are just exactly like my father and grandfather were in slavery times before the war, who lived in south Alabama. That is all there is to it. The slaves were freed. My father and my grandfather and those other southern people, if they wanted to do it could go out and look at the star of civilization and progress in going through its orbit in the heavens, and say to that star: "You must stop because we have got a title to these slaves, and if you don't stop, you will take this title away that we have to these slaves. Therefore, you stop." They took their guns and they went out in the battle fields and tried to stop the march of human progress; but, gentlemen, they could not do it. These holders of these street-railway securities when they come before our legislatures and our commission say: "Here, the march of human progress, of civilization, has got to come to a stop because, now, if it goes any further my stock is liable to go down, and it has got to stop."

Gentlemen, they can stand there if they want to, but we are not going to stop. We will not even hesitate. Their stock is doomed if they take that stand, and it ought to be doomed.

There is one important feature that has been brought out by Mr. Wehle over there, and that is this: Should or could the cost of construction be met by an especial assessment on the property benefited?

We have figured that out a great deal for the benefit of the Referendum League of St. Louis, and we have prepared data—in fact, we have got a bill now, that we are getting petitions on that is going to force the city council to put that question to a vote, for free street-car service in St. Louis. The way this bill has met that proposition is this—

Commissioner WEHLE. Where is the bill?

Mr. DELBRIDGE. It has been prepared by the Referendum League, and it is now only in the shape of a petition; but when we get 17,000 signatures to that petition that will, under the law, compel the city council to put the question to a vote.

Commissioner WEHLE. Has the bill been drafted?

Mr. DELBRIDGE. Yes; the bill has been drafted and printed and we are now getting signatures to the petition. The bill is in the petition; it is a part of the petition.

Commissioner WEHLE. Could you send a copy of that bill here for the record?

Mr. DELBRIDGE. We would be delighted to do so. I will write to them to do so; yes.

We have been getting out those petitions now for about two weeks. They have been in circulation for about two weeks.

Commissioner WEHLE. What does the bill provide?

Mr. DELBRIDGE. It provides, first of all, a free street-car service; that is, that the city shall start to build a few miles of track, and never permit the workmen who build the track to drop the tools until every nook and corner of the city has been provided with a car line, free street-cars.

Our idea is, and the bill provides—

Commissioner GADSDEN. Why don't you substitute moving sidewalks?

Mr. DELBRIDGE. We consider the street-car a moving sidewalk. That is exactly what we are going to make out of it.

Anyway the bill or the measure provides this: That in case it should be necessary—we do not think it is going to be necessary to make any special practice at all; this improvement is going to be so gradual that it is not going to be done in a day or in a month or in a year or in two years; it is going to take 10 or 12 years to build 500 or 600 miles of track in the city there, and that work can be taken care of very easily by the ordinary receipts of the city. However, in case we find it necessary to issue special stocks or bonds it is going to be done in this way: That a board will be appointed, I suppose the public-service commission, and will declare every certain number of square feet on streets that are served by this line shall bear a certain percentage of the cost of the line. Those one block away shall bear a little bit smaller percentage, and those two blocks away a little bit smaller percentage, and so on until—well, we think about half a mile will be about as far as

it will be benefited. That depends on the location, of course. And the city is going to go to the property owners and say: "We are going to tax you for the building of this street-car line, but we are going to refund you this money. Our tax receipt will be virtually a bond on the part of the city, agreeing within 20 years to refund to you the money which you have loaned us now for the purpose of improving your property by building this street-car line now, and we agree to have the city redeem those bonds in 20 years without interest.

Commissioner MAHON. How are you going to redeem them?

Mr. DELBRIDGE. We are going to redeem them in this way: Now, every person has to pay, on an average, in St. Louis, \$21 per capita per year for street-car service. Under free service he will have to pay from \$3 to \$5 a year, and we are going to raise the taxes that \$3 or \$5 a year, and with that \$3 or \$5 a year we are going to create enough sinking fund to take up those bonds without interest.

Commissioner MAHON. You are going to put a head tax on?

Mr. DELBRIDGE. I do not know whether it will be simply a per capita tax or just simply an increase of the general taxation. We believe, however, that an increased tax of 10 cents on \$1,000 per annum will pay the cost of operating free car service, after we have got 300 or 400 miles built.

I think that answers Mr. Wehle's arguments, or his questions, in regard to the method that we propose to use in building that system.

Commissioner WEHLE. My questions addressed this morning to one of the witnesses had reference to special assessments against property holders whose property would be improved in value by the building of an extension of a street railway in the vicinity.

Mr. DELBRIDGE. I do not know whether he stated it in exactly those words, but he estimated that the property had been benefited—I believe it was in Boston—\$133,000,000, when the cost of building that line was some \$30,000,000. Therefore, if we built a line at a cost of \$30,000,000, we only expect to ask property owners to put up \$30,000,000 for 20 years, without interest, and they keep getting the benefit of the difference between \$30,000,000 and \$133,000,000 increased valuation.

Commissioner MAHON. Have you not a petition in St. Louis to purchase the roads that are there now, or did you not have a petition like that?

Mr. DELBRIDGE. No, sir; we did not. In fact, the petition in that line reads this way: That the city shall build and equip the street-railway lines, or if found desirable, they would have the right to purchase, in case it should be found desirable by the committee. But our predominating idea is to build and equip, and leave the roads to do as they please; and most of our organization are opposed to having any effort whatever made to buy them at all, but just to let them run or not to run, to suit themselves.

Commissioner MAHON. What was the referendum petition on which the lawsuit is now pending, in which they were accused of having sold the petition?

Mr. DELBRIDGE. The referendum petition was this: The charters of two or three of the lines were about to expire in a few years and they asked for an extension of 31 years, and the city council granted

them the extension of their charter for 31 years. It raised such a bitter row that the Referendum League went out and got petitions to nullify the act of the council. Now, under the law we had to file those petitions one Monday—Monday was the last day; but we were afraid to risk filing them the last day, because we knew the crowd we were dealing with. They are just about like street-car people are all over the United States. We were afraid to risk them, so we filed the petitions or, at least, intended to file them one Saturday morning about 11 o'clock, but on Friday night the safe where we had 17,000 petitions was drilled and blown open and the petitions were stolen, and it was sworn that they were burned up in the power house of the U. R. We read in the papers Saturday morning that 17,000 had been stolen; they were not all kept in the same safe. But the public indignation was so great that the public poured into the headquarters and by Monday night at 11 o'clock we 19,000 new ones. So the street-car company then went to the council them. The public had replaced the 17,000 stolen signatures with 19,000 new ones. So the street-car company then went to the council and said the best thing to do is to repeal the bill, so we can kill it that way, and the council repealed the bill.

Commissioner MAHON. It is standing that way yet?

Mr. DELBRIDGE. No, sir. The mayor under the charter had the right, and he granted that extension and signed the bill at the Missouri Athletic Club that night and extended their charter for 21 years, so now they have an extension of their charter which has been pronounced valid by the city law department, good for 21 years.

Commissioner MAHON. Twenty-one years?

Mr. DELBRIDGE. Yes; but we are paying no attention to their charter. We are going right ahead getting up our referendum petitions and we are going to have free street-car service in St. Louis.

Now, when they get to talking of the cost of building lines I want to give you a statement here. The city of St. Louis has some works at the Chain of Rocks some few miles up the river. In order to get their workmen to and from this place they asked the street-railway company there to build a street-car line up to the Chain of Rocks so they could transport their workmen. The street-car line refused to do it. Mr. Kelly introduced a bill in the council to build a street car line, and they built and equipped 6 miles of street-railway line to accommodate the workmen at the Chain of Rocks and it cost them \$27,000 to build and equip that 6 miles, and that line was operated free for a few years after it had been built. Any passenger could get on it by simply getting a permit from the city hall and ride free on that line. But of course, after this example and illustration had been going for three or four years, the street-railway interests saw that that thing would not do, and they got a bill through that forces them to charge fares on the city-owned lines.

Let us come to another proposition now. How do they get these awful legitimate values that are fixed up in such a way that they could be classed as legitimate? When you come to the question of valuation, I will say this, that a man would naturally assume it is possible to fix a value on a thing, but it can not be done—that is, an undisputed value. I was ordered to come before the Interstate Com-

merce Commission some years ago and I was notified that the question of valuation was going to be an important feature. In order to simplify that question as much as possible I will tell you what I did. There is a pocket-knife I paid \$1.50 for 15 years ago. After I had used that knife for five or six or seven years I simply took it to a knifsmith and I said, "You take that knife into as many parts as you possibly can." I went back the next day and he handed me 19 pieces of knife in an envelope and says, "There is your knife." I took that out to four or five other concerns and I said, "What will you make me this blade for, and this blade for?" And I took two or three parts to another concern and says, "What will you make that for?" When I had got around I had sworn affidavits to the values of those parts and what they would make them for, and I put it together and it was \$23. So I got on the train with this pocket-knife with those sworn affidavits and I submitted that evidence.

Now, gentlemen, if it is possible to fix a legal valuation on a second-hand pocket-knife that is worth 65 or 60 cents into a legal valuation of \$23, what under heaven's sun can an expert auditor do when it comes to a street-car line with 5,000 different parts? There you are, right there.

Now, there is another proposition. I want to say, I told you all when I first was a young fellow my exclusive work was auditing. This proposition that is bothering us all here to-night is nothing new to me. I have been having to do that all my life for myself and other people. As a natural effect, for the last 15 years I will tell you this: When a man submits to me an auditing proposition, I say to him, "Get somebody else; but if you can find nobody who can do it, bring it to me and I will do it for you." I never take a special job unless it is one that everybody else has abandoned and declared to be impossible. There is a book there that has about 1,000 pages, and each page contains 1,100 calculations. When I first went into auditing there was not any such thing as that to be had. I lived in Atlanta, Ga., at that time and most all my work was with the large cotton factors of the South. They would buy their cotton all over Georgia and Alabama and they would send their tickets in to me when they bought a bale or so many bales of cotton at a certain price, at 9 $\frac{1}{4}$ cents, so many pounds, and they would give the fellow the original copy, keep the duplicate, and send me the triplicate to Atlanta, and I would audit their tickets and charge them \$4 a hundred for the auditing. And I would send the tickets back to them O. K., or if any error was found, with the error pointed out. Between the time the man paid for the cotton and mailed me those duplicates or triplicates and the time I audited them in Atlanta, it was generally just about a week that would elapse, or five or six days. Of course, most of the farmers lived out 5 or 6 or 8 or 10 miles. Then if there was an error, the next time the farmer came to town the merchant would call his attention to it and refund it. That went on for five or six years, and I made a living at it. There is a proposition where I was getting \$44 for a given amount of work and I thought: This thing is obsolete; we must devise some simpler plan than this. Sometimes they would telegraph me to be careful to get these off to-night, and it was a responsible job. I concluded that the thing was to devise some scheme which would

render it possible for a bookkeeper in the office to do his own work, and those books are the result of that.

To-day we are selling for 2 cents and making more money than we used to sell the special work and get \$44 for. It is simply a difference of system. We have changed that. What we give the man to-day for 2 cents does his work better than we could do it when we got \$44 for it.

Now, I told the street railroads in St. Louis 20 years ago—I said, “Let me tell you, if you people will drop your fares to 3 cents, you won’t have to do any bribery business; you can save all that money, and you will absolutely make more money than you are at 5 cents. You will educate the people to ride on the cars.”

Under the recent conditions you stand at every car door with a club and you say to this man that gets on this car, “You fool, keep off of those cars.” They do not knock a man’s brains out and make him keep off of those cars, but they do everything else they can to induce him to keep off the cars, and we have got to change the system; we have got to sweep all that nonsensical stuff out of existence and eliminate this enormous unnecessary expense of car operation; and that is just simply to have the free car service. In the first place, the very first thing you save is your overhead expenses and franchise—

Commissioner MEEKER. I notice that during the rush hour here in Washington and other cities the street-cars simply can not handle the traffic even with the 5-cent fares and fares in excess of that. Would it not be extremely difficult or impossible to handle the traffic with no fares at all?

Mr. DELBRIDGE. Your honor, I will say this, that when we get into this peak-load business that is being taken advantage of to the utmost limit by the street-car companies by threatening that they can not put on the cars. Now, there are plenty of men who work a certain number of hours a day, and they will say to their boss, “Now, here, I will work for you up to, say 5 o’clock, because from 5 to 7 the car company will give me 75 cents an hour and I could work the two hours”—or a dollar or a dollar and a quarter an hour, and it will solve the problem in that way.

Now, if it is possible for a car company to operate the cars and get as much money for a strap service as they do for a seat service, does it not stand to reason that they will extend the strap service to every hour in the day that they can? If that argument holds good, let me cite you an example. In my work I pay very little attention to the time of day or night. I do not look at the clock. I get up and go down to my office and do my work. Now, a little while ago I had occasion to go to my office one Sunday morning at half past 3. I would not call Sunday morning at half past 3 o’clock a rush hour, yet I want to say to you that that crowd I got into on that car—I found when I went to get out that two of my vest buttons had been scraped off getting into that crowd on the car. They simply put on the cars and feed them out on the streets at such intervals as they think would, as one gentleman expressed it, give them the largest income, and that is the only idea on earth they think about.

In the first place, they should not be permitted, if they collect fares at all, to have two fares for the same class of service, nor have two classes of service for the same fare. The courts have held that to be absolutely illegal, and under existing laws I believe it is illegal for

a car company to collect 5 cents from one man and give him a seat and charge another 5 cents unless they give him a seat. And whenever the time comes when they want to solve that problem enough cars will be put on to give every passenger a seat.

A few years ago I was at Birmingham, Ala., and they had a big baseball game out at the park. There were thousands of people there. But do you know, that company had enough cars on the side track to give every passenger a seat. If they want to do it, they will do it, but they will never do it under prevailing conditions.

The CHAIRMAN. What motive do they have in not giving good service?

Mr. DELBRIDGE. Well, your honor, what motive did the Southern people have—what motive did we have in the South for holding slaves? When my father and grandfather and my uncle went out among their people and said to them, "Here, the time has come for slavery to be abolished," they hooted at them and they said, "No; we will hold our slaves." And they went into that war and they lost one-half of the best blood of the South and every dollar on earth they had besides the slaves, and they lost the slaves in the end. Why? Because the Southern people were just simply that stupid. Now, the motive that these street-railway officials have in rendering bad service is just simply because they have not got any better sense. They are just that stupid; that is all.

Now, this question of depreciation. That question has been raised here a great deal. Do you know, as an absolute matter of fact, that I heard, under oath, Perkins, the general manager of the street-car lines in St. Louis, admit within the last 30 days that his company had sworn on the 7th of May, 1914, that their gross property was worth \$6,783,000, and that in the last 12 years they had charged off to depreciation \$33,000,000. How in this world can property worth \$6,000,000 depreciate \$33,000,000 in 12 years?

Now, on cross-examination they asked him, "Mr. Perkins, don't you think that is an excessive depreciation account?" Well, no; he did not think so. The truth of the matter is up to two years ago they had been charging 2 per cent a year instead of 10 per cent, and they asked him if he spent this money in repairing the cars. No. Then they took the auditor's report and showed where last year they simply took from depreciation account and redeemed \$500,000 worth of bonds.

In the first place, depreciation account in almost all cases is simply and solely a slush fund. If a window is broken out of a car or if the car is damaged, it is rolled into the shops at night and that car is repaired. The depreciation is taken care of in the pay-roll account and in the purchase of supplies; therefore, there is virtually no depreciation at all that ought to be charged, and it is purely a slush account.

Now, gentlemen, there is a little red book that I wish to submit here in evidence. There is the auditor who cracked that safe for the benefit of the street railroads of St. Louis. That is his statement, and this book has been sworn to under oath before the grand jury in St. Louis. This auditor, in every paragraph in that book, tells about spending thousands and hundreds of thousands of dollars in bribery and in trying to defeat labor organizations there in St.

Louis. Yet, gentlemen, not one dollar of that appears in that company report—not a dollar.

Where did that money come from? Where did that money come from that was spent, that this man detailed—millions of dollars there, and not one cent of it shows in their report? It just simply comes from the depreciation account and from thousands and thousands of other accounts.

Commissioner GADSDEN. You don't think they should keep any depreciation account?

Mr. DELBRIDGE. That is purely questionable. The depreciation is always taken care of in the pay roll and in the purchase of supplies.

Now, gentlemen, I want to come to an issue that is more vital than anything that we have touched upon yet.

On account of my familiarity with street-railway bookkeeping and data, when I first went to St. Louis about 20 years ago, of course, I realized, after I had been there for two or three days, the conditions. (I knew nothing especially about the street-railway business at Atlanta.) But if you put a mouse in a room where there is a rat-hole he knows where the rat is going to go, and he does not have to do much investigating to find the hole. He knows there is a hole there, and he knows just about where to look for it. That is just about the way it is with an auditor on a proposition like that.

I saw by the enormous number of accidents happening on the line there, that it was rather a bad proposition. That was to me a much more serious proposition than the enormous amounts of watered stocks. According to their own sworn statements, they have \$6.52½ on every \$100 worth of stock and bonds, and they have pocketed or paid to some authorities \$93.47½. That is according to their own sworn statements, and I suppose it is about true.

What appealed to me strongest was the enormous number of accidents. Of course, knowing something about the rules of percentages, I knew if they had a thousand cars on those streets, and they averaged each car running 10 hours a day, that would give them 10,000 car-hours a day; and I realized that, if I traveled on the cars an average of an hour a day and if I saw an accident once a week, or once a month, or once in two months, the ratio would hold good, and that there was an enormous number of accidents.

That made me very indignant. I realized that it was all brought about by the attempts to operate their cars at such a speed as to enable them to take in enough money to pay dividends on \$100 with an actual investment of \$6.52½. I realized that that meant not only dangerous but absolutely murderous service.

I took up that question in the Republic on January 9, 1913. The street-car companies admit in a report there that they injured, maimed, and killed for the previous year 5,949 people. I took that up with the street-car men, and I said, "Gentlemen, it looks to me like your legal expense in regard to all this stuff would be so great that it would pay you to put on a sufficient number of cars to enable you to operate the cars carefully enough to keep from maiming, injuring, and killing this vast number of people."

They talked the thing over, and finally they said, "The truth of the matter is, we have gone over the thing and figured it all out, and we do not care to make any change."

In other words, they told me this: "That it costs us more money to operate our cars in such a way that we do not kill men, than it does to kill the men. Consequently, we will just let things run along as they are now."

So, in the Republic of January 9, 1913—they admitted injuring, maiming, and killing for the previous year 5,949 people; so that on the 18th of March—it took me quite a little while, it took me about three months to work that out—on the 18th of March I saw that the thing to do was to force them to put on more care; but the proposition was how to force them to put on more cars. I knew at the city hall we could get no chance, and that at the legislature we could not get any chance, so I then figured it out this way: If I could start a movement of paying 3 cents unless we got a seat, it would do the work.

So, on March 18th, I got on a car, and I says to the conductor: "I don't see any seats in this car. Here are three cents. I will pay the other 2 cents if I get a seat before I get down town."

He didn't say anything. He asked me what my name was, and asked me for a card, and I gave him two or three of them.

The next morning there was a little bit of a row about that.

That kept up there every day for about 10 days.

On the 29th of March, the conductor says to me: "You drop the fare in the box; the fare on this car is 5 cents, and you drop that other 2 cents in the box or I will have you arrested."

By that time I was up around the middle of the car and to be candid, I am not very modest, and I didn't object to all the passengers in the car knowing exactly what was being done. So I straightened up, and I said to him: "All right, old man, there is a police station down the street just nine blocks, and in order to see that you don't forget to have me arrested, I will let you know when we get there, but I will not pay that other 2 cents until you give me a seat."

We shot by that police station at about 25 miles an hour. About half a block before we got there, I sung out: "Here is the police station only half a block away. If you want to have me arrested, you had best begin to slack up." But we didn't slack up at all.

When I got down town I had not got a seat, and I said to him: "Why didn't you have me arrested?" He looked at me and smiled and said, "You will have to pick a younger man than I am."

From that day for five years in not a single instance did I ever pay but 3 cents unless I got a seat. The street-car company-officials just simply issued instructions to say nothing about it; and a good many were doing the same thing. What was the result? In the Post-Dispatch of May 5, 1914, they published a report which showed that they injured, maimed, and killed the previous year, 3,720 people. In other words, they had injured, maimed, and killed 2,229 fewer people than they had in the previous year; and they admitted, in the report published June 3 of that same year that they had put on 112 additional cars.

In other words, by our forcing them to put on 112 additional cars they admitted that they injured, maimed, and killed 2,229 fewer people in a single year.

In the Times of October 19, 1915, a year later still, they admitted that they injured, maimed, and killed—that in two years' time those

fellows reduced their accidents from 5,549 to 3,050. In other words, they injured, maimed, and killed 2,899 fewer people within a single year.

The commission, however, about this time passed a rule that the legal car service should be a service where all the cars preceding a given car for 15 minutes and also following for 15 minutes, contain 60 seats for every 100 passengers—60 or 70 seats for every 100 passengers, which rendered it impossible for me to make anything like a successful suit in case I was put off for refusing to pay fare; and that stopped it, but I kept it up for two or three years after the commission passed this rule.

How is it possible for all these favors to be granted by commissions and by legislatures and by city councils? It costs money to do that.

It is not the cost of the rise in materials; it is not the cost in the rise in the price of labor but, gentlemen, they are asking increased fares in order to meet the additional cost of bribery, and for no other purpose in this world. That is it.

Now, wait a minute. I have been an auditor for companies for a long time, and I have talked with these officials about their labor costs, and there is not a man who is a manager of a railroad in the United States, nor a factory that employs 1,000 people, but who will tell you fairly and squarely that it is not the cheap labor that turns out a unit of product at the lowest cost, but the best labor and the most expensive labor; and any other statement is a lie.

You take the labor in those concerns I am connected with—and my gracious, I see a boy at work, and I want to see what the habits of that boy are; how much you are paying him? And if you pay that boy the limit you will get good, honest, sincere work, and if you can not do it, you let that boy go, but don't cut down his wages. That is the way to get it. It is not the cheap labor that does the cheap work. It is the good, honest labor, the expensive labor that does the cheap work, and when the street-railway men tell you that they have increased the wages of their men from 40 to 50 cents or 60 cents an hour, and it costs them more money to do it, it is a lie; it does not, because the work of those men is that much more efficient, and they have fewer accidents, and they handle their work in a more satisfactory way, and they make better time. That applies to all classes of labor.

I say this: There is some profiteering—a little bit. But I want to impress this commission with this fact: You can sit here for a year, if you want to, or for two years, or for 50 years, but there is only one solution of the street-railroad problem that is going to do the work, and that is to put on a free car service. Let it be done by the city; let it be done by the State; let it be done by the Nation; but any system of auditing where you attempt to collect each fare, and go to the expense of preparing for that, costs more money to do that than it does to render the service for which the fare is paid. We have got to eliminate that if we want to solve the problem.

This question was asked me—I have had to appear before a great many commissions and committees and bodies—and one of our lawyers asked me, on the stand, when that public-service commission submitted their report showing it cost the 7.58 cents to haul a street-

railway passenger in St. Louis, he says to me: "Do you believe these reports are made with any idea of anybody believing these reports?" And I says, "No; I do not. The thing is so raw; it is so black and so infamous, so outrageously and infamously bad that I sincerely believe they do not expect anybody to believe it, but merely to provide interested and bribed individuals with an excuse for claiming that they do believe it." That is what those things are done for.

Let us take an honest cost proposition. Here is an absolute case: Capt. Schinker, in St. Louis, owned some property outside of the city, and he wanted a street-car line out to that property, and he asked the street railway if they would build it, and they said no. So Capt. Schinker built $3\frac{1}{2}$ miles of track and equipped it, and built a power house, and provided for electricity and everything, at a gross cost of \$66,000 for the $3\frac{1}{2}$ miles of track.

He gradually sold out his property there, and decided that he would go out of the street-railway business. So then he went to the street-railway company and told them that he wanted to be perfectly honest with the people. He said: "I have sold this property to them. I sold them this property one day when there was a street car line running there, and I promised them that that line would continue to run. Now, what will you give me for this property and continue to operate the line?" They said, "We will not give you anything for it." He says, "All right; then I will give it to you." So he presented the street-railway companies there with that street-railway line, costing him \$66,000 to build, under a contract that they would continue to operate the line.

A little later they had a reorganization in St. Louis, and that line was sold to the new company for \$600,000.

In other words, the stockholders and bondholders there are requiring the people of St. Louis to pay enough to pay 6 per cent upon a \$600,000 investment that did not cost them one single solitary cent. Now, the reorganization company paid \$600,000. They gave somebody \$600,000 in stocks and bonds, and they could claim that it cost them that amount of money because they did issue stocks and bonds to the amount of that.

I was mighty sorry to see that Mr. Bauer got confused on the stand to-day. He did. He made this statement: He said that electricity costs so much to get it into the controller box to operate the car that it was impossible for the rider to pay enough fare to pay the cost of that electricity. There never was a greater mistake in the world. He is honest enough, but that is all a mistake. For instance, every elevator in the office buildings of St. Louis, where they operate from just a little after sun-up until about dark, continuously—the average cost of the electricity for an elevator is only \$20 a month. Now, if an elevator that lifts a dead weight up and down can be operated a month at a cost of \$20, is it not absolutely absurd to assume that it costs the street-car company any more than that? The power used is about the same in each case; therefore the cost of electricity for a street-car is not over \$20 a month. I do not care how they pad the figures, or anything about that, but I want to show you how that padding is done. In St. Louis, they have the Keokuk Dam, up at

Keokuk, Iowa. I am told that there are five distributing companies between the place where the power is generated and the car that uses the power; that one company buys it from another; that another company buys it from that company; and another company buys it from that company. Gentlemen, do you know, if you take a product that costs \$1 to sell it, that sells for a dollar, and which bears a profit even at the dollar that it is sold for, if you will pass that through four middlemen's hands, and assume that the cost of doing business of each middleman is 20 per cent, and he wants a profit of 20 per cent, that the man who buys it from the fourth dealer has got to pay \$13.66 in order for each one of those to get that 20 per cent profit? That is one of the ways those things are done. Of course, there are thousands and thousands of ways that is done.

Now, another thing——

The CHAIRMAN. You have suggested several times that there is a solution, and that is for the city to operate these plants without charging passengers.

Mr. DELBRIDGE. Yes.

The CHAIRMAN. It is your real solution, is it not?

Mr. DELBRIDGE. That is the only solution; yes, sir.

The CHAIRMAN. How is that solution to be brought about?

Mr. DELBRIDGE. That solution is to be brought about by just simply increasing your general tax rate a little. We estimate in St. Louis that, after we have got the entire city gridironed with street railroads, the increase in taxes will be 10 cents on a thousand dollars, in order to operate a free car service.

The CHAIRMAN. Now, this commission has been appointed to study the present condition of the street-car industry and to make recommendations.

Mr. DELBRIDGE. Yes.

The CHAIRMAN. If we were to agree with you and recommend that all of the cities and communities in the country should purchase these plants and operate them free, would you think our recommendation would operate to relieve the situation?

Mr. DELBRIDGE. If you recommend to purchase the plants, I think it would complicate the situation; but if you recommend for each city to build and purchase nothing except the material to build your street railway and equip it with, but simply build 2 or 3 miles of track as a start and keep it up until it extends throughout the city, I am thoroughly satisfied that it will be adopted. In fact, it is going to be adopted anyhow.

The CHAIRMAN. Then your ultimate solution is for the city to build its own plant——

Mr. DELBRIDGE. Yes, sir.

The CHAIRMAN. Until after a while it will completely supplant the present privately owned company?

Mr. DELBRIDGE. Yes, sir; absolutely.

The CHAIRMAN. What will happen to the investment in the privately owned railroad?

Mr. DELBRIDGE. Just exactly what will happen to a dollar if a man has a hole in his pocket and goes out on the street and it drops out of the hole; he has simply lost his investment.

The CHAIRMAN. Assuming that the investment is honestly made in a utility that was giving good public service, would you favor sacrificing their property?

Mr. DELBRIDGE. I say this, your honor: That my family owned a paper mill. A patent came along that changed the paper business. We did not go to anybody and ask anybody to reimburse us for our loss. We simply sold the thing for what we could get for it.

The CHAIRMAN. That was due to an improvement in an art, but here you are asking the city to build the same kind of a street-car line and operate it in competition with a privately owned system, and which will result in destroying the investment in the privately owned system.

Mr. DELBRIDGE. Your honor, I deny that. I do not think it will result in destroying it at all. Here is what will actually result. It will result in this: The owners in that street-car line when that city has built the 1 or 2 miles of track will simply go and get some competent man to manage that line and they will say to him, "You put on service that will compete with the city's service, and if he can not do it he must go out of business, and inside of a few years his property will be worn out anyway and he can not rebuild it.

The CHAIRMAN. How would it be possible for a privately owned concern charging a fare to compete with a publicly owned concern that does not charge a fare?

Mr. DELBRIDGE. For the reason that the privately owned concern has 500 miles of track, or in St. Louis 350 miles, and the publicly owned concern has 2, 3, or 4 miles, and when that privately owned concern shows the people fairly and squarely and honestly that they are rendering them the service for which they pay and not rendering them a half-a-cent service for a 10-cent fare, then the city will simply slowly make the extensions; they will not do that inside of ten years or five years.

The CHAIRMAN. What association do you represent here to-night?

Mr. DELBRIDGE. The Citizens' Referendum League of St. Louis.

The CHAIRMAN. How many members belong to it?

Mr. DELBRIDGE. We have in active members about three or four hundred, but we have about 60,000 members in St. Louis. We have got that many signatures.

The CHAIRMAN. You have that many signatures?

Mr. DELBRIDGE. Yes; 66,000.

The CHAIRMAN. Did those 60,000 members in St. Louis indorse your view?

Mr. DELBRIDGE. Yes, sir; I will tell you how that was. The question was brought up for some little time and they met it this way: That we must recognize that we do not do all the voting in St. Louis. We must devise a plan that will appeal to the voters, and the best thing to do is to suggest this plan: Let the first two years be a 5-cent fare, the next two years a 4-cent fare, the next two years a 3-cent fare, the next two years a 2-cent fare, the next two years 1 cent, and then nothing. Then that was thrashed out and was thought a good deal of. Then they suggested—well, our annual meeting is only a few weeks off and we will postpone that question until the annual meeting. Then they appointed Mr. Lawrence, who is one of our most able men, and his idea was very strong that we must put the

fare for the first two years 5 cents. They appointed Mr. Lawrence to debate that, and I should debate the free proposition. We were each given our time, and I told them to give Mr. Lawrence the opening and closing, just to suit him. So when the time came we had our argument and this meeting was announced in the press, and when the vote came the chairman says, "We want everybody to rise"—and that hall was packed—"who favor the free car service from the very start or indorse Mr. Delbridge's idea." Every person in that hall but four rose. Then he says, "I want everybody who favors the graduated scale to rise," but there was not a person who rose. It was by a unanimous vote.

The CHAIRMAN. Did you understand that vote to mean that those people favored a free street-car ride upon the condition that they could destroy the existing property of the investment that is in it?

Mr. DELBRIDGE. Your honor, if a man makes a bad investment I do not think the public should be called upon to recompense him.

The CHAIRMAN. Do you take that vote as representing that opinion?

Mr. DELBRIDGE. I take that vote as representing the idea of the people of St. Louis in regard to it, because I sincerely think they are better educated on that point than in any other city in the country. Yes, sir; they are perfectly willing for the street-railway officials and stockholders and bondholders, if they had invested any honest money in that thing, to lose what it is.

The CHAIRMAN. What is the difference between confiscation of property in that way and the soviet form of government we hear so much about now?

Mr. DELBRIDGE. Your honor, I will tell you. I believe that the Interstate Commerce Commission has held that a public carrier is entitled to 6 per cent per annum upon its money and that any amount that he receives above 6 per cent is money that he is entitled to. Now if, ever since 1851 these stockholders and bondholders have been receiving \$3,000,000 a year, as they are trying to get—\$4,800,000 a year—upon an investment of \$6,783,000, according to their sworn statements, they have not got, and for 20 years have not had, one dollar invested in the street railroads of St. Louis, for the simple reason that they have received enough over 6 per cent to reimburse them for the money they paid in; and that will apply to every city in the United States.

The CHAIRMAN. You say that for taxation purposes the company swore that the property was worth \$6,783,000 in round figures?

Mr. DELBRIDGE. Yes.

The CHAIRMAN. Was that the taxation simply upon its franchise value?

Mr. DELBRIDGE. No, sir; that was the physical property.

The CHAIRMAN. The physical property?

Mr. DELBRIDGE. Yes, sir; the roadbed and all their rolling stock and buildings and all.

The CHAIRMAN. And yet the public-service commission of that State found the property to be worth \$60,000,000?

Mr. DELBRIDGE. Yes.

The CHAIRMAN. Did they make a careful inventory of that property?

Mr. DELBRIDGE. Your honor, they claimed that they made a careful inventory of that property.

The CHAIRMAN. Do you know that they did make an inventory of that property?

Mr. DELBRIDGE. Well—oh, such an inventory as I made of the pocketknife; yes, sir; just such an inventory as that.

The CHAIRMAN. Well, you took the pocketknife apart and knew how many pieces there were and found out in your own way the value of those pieces?

Mr. DELBRIDGE. Yes.

The CHAIRMAN. Then you put it together again?

Mr. DELBRIDGE. Yes.

The CHAIRMAN. Did the commission go to work and find out the number of ties and rails and bolts and cars and everything else of that company?

Mr. DELBRIDGE. I got the word there from one of the commissioners—I heard him say this (it was not in that particular valuation)—I heard him say, "We took their values as they gave them and we deducted 40 per cent from their values, because we never heard of a company claiming more than a 40 per cent unjust valuation and therefore we deducted 40 per cent."

The CHAIRMAN. Do you know what they found the rails to be worth?

Mr. DELBRIDGE. No; I do not.

The CHAIRMAN. Do you know what they found the equipment to be worth?

Mr. DELBRIDGE. No, sir; I do not.

The CHAIRMAN. You do not know what they found the labor cost of reproducing that property to be?

Mr. DELBRIDGE. No; I do not.

The CHAIRMAN. And yet you say that that commission after having studied the question and determined the value to be \$60,000,000 was wrong to the extent of \$53,000,000?

Mr. DELBRIDGE. I do; yes, sir.

The CHAIRMAN. And they are a public body in that State?

Mr. DELBRIDGE. Yes, sir.

The CHAIRMAN. What was done by the public when the commission made that sort of a value?

Mr. DELBRIDGE. Just exactly like it does in everything else. It did exactly the same thing when the commission passed the rule there that a street car traveling on a certain highway, that every car preceding it for 15 minutes if it had 70 feet, and every car following with 70 feet was a legal service—

The CHAIRMAN. Does the law permit appeals to be taken from an order found by the commission fixing the value?

Mr. DELBRIDGE. Well, I do not know about that. If it does, I do not think it would be practicable.

The CHAIRMAN. Why did you not take an appeal from that finding?

Mr. DELBRIDGE. Because I have been before the courts so much that, as one gentleman expressed it in St. Louis, I had just as soon have a case against the devil at a courthouse in hell as to have a suit against a public-service corporation in St. Louis.

The CHAIRMAN. But you also have the supreme court to go to.

Mr. DELBRIDGE. Yes, sir; we have a supreme court there.

The CHAIRMAN. Then you have not got very much respect for the public officials or courts or law in St. Louis or Missouri?

Mr. DELBRIDGE. Well, your honor, to be perfectly candid with you, I will say this, that it does look like to me, from all the experience and information that I can possibly gather, and I believe that every man in the United States, virtually, from Maine to California, has got to the point where they no longer look upon our courts as a place where justice between man and man is administered, but merely as a refuge and a haven for the murderer, the robber, the burglar, and the thief.

The CHAIRMAN. I hope that you will not believe for one moment that any member of this commission entertains that sort of idea.

Mr. DELBRIDGE. Well, of course, your honor, you asked me what my belief was. You asked me what my belief was.

The CHAIRMAN. It is also your belief, I suppose, that every manager and officer of a street-car company is a rogue and a thief?

Mr. DELBRIDGE. Well, now, I would not want to say that; but I will answer that question—

The CHAIRMAN. At least, they are in St. Louis.

Mr. DELBRIDGE. Yes—well, now I will answer that question. In St. Louis I was on a car, sitting on a seat very close to the conductor. A man came along and paid his fare and asked for a certain transfer, and the conductor punched the transfer and handed it to him. And a gentleman standing or sitting there by the conductor says, "Look here, you ought not to have given that transfer; he is not entitled to it." And the conductor turns around to that man and said, "Look here, now," he says, "You need not think because all you people out at the offices are thieves that we conductors are thieves, too, because we are not. I gave the man the transfer because he was entitled to a transfer." I heard that reply made.

The CHAIRMAN. It is your general notion that public officers are not to be relied upon?

Mr. DELBRIDGE. Well, I don't think that is a fair question. I will say this, that of all the auditing that I have ever done, when it comes to fighting a corporation in the courts I do not look upon an individual as having any chance in those courts. The thing is not so much any dishonesty upon the part of the official, but it is the outgrowth of the precedents and the customs and this, that, and the other thing, that no one individual is responsible for.

Take this question confronting the street railroads. If an officer went in there with the best intentions in the world, my gracious, he has got thousands of stocks and bonds that were issued before he was born, and he has got to do the best he can with what is before him, with what confronts him.

The CHAIRMAN. I do not think this commission cares to hear any more from a witness who indicts practically our whole social system and our whole judicial system.

You have come here with a very interesting sort of propaganda. You have given us some figures that I can not believe are correct. I can not believe for one moment that that huge street-car system in St. Louis is only worth \$6,700,000, because to believe that means that

I must also believe that the public-service commission of that State is dishonest, and I refuse to believe that. So this meeting stands adjourned until to-morrow morning at 10 o'clock.

Mr. DELBRIDGE. I can only give you their sworn statements.

(Whereupon, at 9.45 o'clock p. m., an adjournment was taken until to-morrow, October 1, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *October 1, 1919—10 a. m.*

Present: Parties as before.

Met pursuant to adjournment.

Commissioner SWEET. Gentlemen, come to order. Mr. Ogburn, what is the first thing on the program?

Mr. OGBURN. Mr. Chairman, the hearing for to-day and to-morrow will be taken up by the Amalgamated Association of Street and Electric Railway Employees in putting on their program giving the labor side. This program is in charge of Mr. W. Jett Lauck, a very well-known economist, who will make an opening statement and then put on some witnesses in connection with his program. Mr. Lauck.

STATEMENT OF MR. W. JETT LAUCK.

Mr. LAUCK. Mr. Chairman and gentlemen, a great many of our exhibits are more or less technical and analytical, and for that reason I thought it would be better to make an opening statement as to the points we wish to develop, so the commission could have them clearly in mind as we proceeded.

The data and exhibits which we shall submit will cover five main points:

First. We shall show by an analysis of the operating statistics and performance of the street railways that the present deplorable condition in which they find themselves has not been due to an advance in operating costs arising from increased wage outlays to labor. On the contrary, we shall attempt to prove that the productive efficiency of motormen and conductors has steadily increased, and that labor costs of operation have not advanced proportionately with other costs of operation, the increase in the cost of trainmen for each passenger carried ranging only from one-fourth to one-third of a cent during the past 18 years. Payments to employees in the industry, it will be shown, have had no real effect upon the present finances of the companies.

Second. We shall show that the present financial condition of the street-railway industry has arisen primarily from the past financial management of these public utilities. We shall submit a brief review of the past financial history of representative street-railway corporations, which will disclose the fact that the extraordinary gains in revenue which have arisen from the growth in the population of cities, the granting of special franchises, the development of trade and industry in and around urban centers, the adoption of mechanical devices and improved methods of operation, have to a large extent been absorbed by fictitious capitalization or dissipated by improper or misguided financial management. As a result of

these practices, we shall attempt to show further that the past productive efficiency of employees has been absorbed by fictitious capitalization, and that, if existing methods and security issues are allowed to be continued into the future, the fruits of the labor of employees as yet unborn will be absorbed by fictitious securities already issued; and our conclusion on this point will be that unless the past basis of financial management and control of the industry is changed, the future is without hope to the employees of the street-railway companies or to the general public. We do not charge the present managements with these malpractices or past misdeeds, but they are the victims of the acts of their predecessors and therefore will have to suffer more or less for the acts of their predecessors.

Third. We shall show that financial management of the street-railway companies has invariably been followed by a lack of the proper development of operating efficiency and service to the public, and also by the failure to adopt operating policies which would bring out the maximum of productive efficiency of the employees.

Fourth. As to the actual rates of pay received by labor in the industry, we shall show that the earnings of motormen and conductors before the war were actually below a subsistence level and were entirely inadequate to maintain a proper standard of living; that wage increases received during the war by awards of the National War Labor Board and by other agencies and methods were very moderate, and that, in general, the cost of living has increased much faster than the rates of pay of trainmen; that as a consequence the earnings of trainmen are even more inadequate now than they were before the war and not sufficient to maintain a standard of living based on health and reasonable comfort; and finally that the wage increases received in other industries during the past five years have been greater than those secured by motormen and conductors, and that out of approximately 100 leading industrial occupations the conductors and motormen are the lowest paid of any.

Fifth. Finally, we shall submit evidence to show that our own Government, by official proclamation of the President during the war, and the leading industrial and commercial nations of the world, by their sanction of the treaty of peace since the armistice, have accepted as fundamental rights of labor the principles of an 8-hour day, a living wage, and union recognition, and we shall contend that these principles are no longer debatable and that this commission should accept these principles as an essential condition to any recommendations which it may make for the rehabilitation of the street-railway industry.

And at the conclusion of this testimony it is planned to have the head of the organization set forth his own constructive ideas as to the rehabilitation of the properties.

In starting out on our program we would like to depart somewhat from the outline as I have given it here, for the reason that we have two witnesses, one from Cleveland and one from Detroit, who find it necessary to return immediately on account of the duties they have there; and we would like to introduce their testimony first, which will cover the long hours of work as to the general policy of the Amalgamated Association in dealing with the employers and making trade agreements. And, if there is no objection, we will

have these two gentlemen appear first and then take up our regular order as I have outlined it.

Commissioner SWEET. There is no objection to your taking that course.

Mr. LAUCK. The first gentleman I would like to have appear is Mr. Ferguson.

STATEMENT OF MR. CAREY FERGUSON.

Mr. LAUCK. Mr. Ferguson, will you please state your official connection with the Amalgamated Association, and your experience in the negotiation of wage matters?

Mr. FERGUSON. I have been a conductor in the employ of the Detroit Electric Railways for 17½ years.

For the last two years I have represented our division as business agent of the division.

Mr. LAUCK. You have prepared a statement which you wish to read to the commission, have you not?

Mr. FERGUSON. We have prepared a statement, yes, that I would like to read to the commission, addressed to the gentlemen of the commission.

We appear before you as representatives of the Amalgamated Association of Street & Electric Railway Employees of America, for the purpose of presenting information to you upon two subjects: First, as to the policy of the Amalgamated Association in making written contracts with the employing companies and its policy in carrying out and living up to those contracts; and, second, we want to inform you as to the conditions under which the street and electric men of America are compelled to work. We have evidence to show you that our work is arduous and our hours are long, and for that purpose we have brought with us schedules which will show you the working conditions of Cleveland, Ohio, and Detroit, Mich., which, in our opinion, are typical of the working conditions prevailing throughout the United States.

We desire first to call your attention to the policy of the Amalgamated Association in making and adhering to its written contracts. Our reason for submitting this information is that we have noted in reports that have come from the evidence which has been submitted to your commission that there has been some criticism and a claim made that our association did not adhere to its contracts. We believe that the report of the international president of our association to our convention, which was held in Chicago during the month of September of this year, will best explain to you the policy on contracts and the number of same which are in existence between this organization and employing companies. The president in his report to the convention had the following to say upon agreements:

The policy of our association to secure written contracts covering wages and working conditions for a given period with the employing companies has been followed during this term as it has in the past with good and satisfactory results. Our old divisions have been able to renew their agreements in practically every case, and the great majority of newly formed divisions have been able to secure written agreements with their companies. The reports at the Providence convention two years ago showed that we had at that time 250 written contracts with the different employing companies. During the past two years 76 divisions have secured written contracts with their respective

companies, which brings the total now of written contracts prevailing between our local divisions and employing companies to 326.

Now, my advice is that the policy of securing written contracts be continued. It is the best way of dealing—it is the rudder by which we steer this organization successfully, and therefore its continuance, in my opinion, is necessary to the proper success of the organization.

Now, as to the policy of our organization's living up to its contracts, we would inform you that the great majority of our local organizations and the membership composing them have adhered to and strictly carried out their contracts with the employing companies, with very few exceptions. There have been some three or four cases where our local divisions have acted contrary to this principle. We might also point out to you where several street-railway companies refused to adhere to their written contracts and violated them; not only with our association, but in some cases with municipalities, refusing to further continue under the terms of their franchises, which are nothing more or less than written contracts with municipalities; but the policy of our association is clearly shown in the cases of the Bay State roads of Massachusetts, where several of our divisions, in violation of their contracts, suspended work in the month of June of this year. The records show that the international president and general executive board of our association compelled these organizations to return to work and adhere to their contracts. Another case is that of Pittsburgh, Pa., where only a few weeks ago the local division refused to comply with its contract arrangements and went on strike, but, due to the position taken by the international president and the general executive board, they were compelled to return to work and adhere to their contract, and at our recent convention in September this matter was brought up by the international president in his report to the convention, and in his report on this subject he says:

I would remind you that the integrity of this organization is at stake. In the past we have borne the reputation of living up to our contracts. If contracts are to be disregarded and our laws cast aside we can not ask anyone to have confidence in us, and by such actions we will be destroying what we have struggled for for years—namely, the right of collective bargaining. It is a serious matter and one that calls for consideration and action at your hands.

The convention in considering this subject fully indorsed the position that had been taken by the international president and the general executive board and laid down the policy that organizations in the future must strictly adhere to and live up to their contracts if they were to remain a part of the Amalgamated Association of Street & Electric Railway Employees of America. And we desire that your commission shall know fully what our position is upon the subject of contracts and of our living up to them, in order that the statements heretofore made may be corrected and the true policy of our association known.

Mr. LAUCK. That completes your official statement as to the policy of the organization relative to collective bargaining and the maintenance of its contracts when they are once entered into?

Mr. FERGUSON. Yes; that completes the statement.

Mr. LAUCK. As I understand it, you have prepared also a statement showing the working conditions so far as hours of work and

lengths of run are concerned, which is based upon an exhibit submitted by the street railways in a former arbitration which you had; is not that true?

Mr. FERGUSON. That is true.

Mr. LAUCK. I think it would be well, Mr. Ferguson, if you would explain to the commission the origin of this exhibit, and then give a summary statement as to what the exhibit shows, as to the lengths of run and the hours of duty and the hours paid for.

Mr. FERGUSON. The statement as we prepared it for the arbitration board in the spring of 1917 analyzed in full the schedule conditions as they existed at that time, and of which a complete analysis appears in the proceedings of the convention, known as volume No. 2 of the arbitration proceedings. Our presentation was a full analysis of each line throughout the entire system, and in connection with that, the company submitted a table showing the condition as it affected the total number of runs in the entire system.

Mr. LAUCK. If I may interrupt you just a moment, Mr. Ferguson, this is what is known as the Grinnell arbitration in Detroit, in 1917, is it not?

Mr. FERGUSON. It is spoken of as the Grinnell arbitration; yes.

Mr. LAUCK. And the basic material consists of an exhibit submitted by the Detroit United Electric Railways at that time, does it not?

Mr. FERGUSON. Yes. This table was submitted by the Detroit United Railway covering that condition, and this book is identical with this [indicating] only that it is detailed; it is fully analyzed as it affects each line of the entire system.

Mr. LAUCK. In other words, the blue print is a summary statement of basic data, so to speak, which was submitted by the railroads, and your object is to show, from that, the extent of runs and the time on duty, the hours of service and the time actually paid for, as typical of the operating conditions in Detroit?

Mr. FERGUSON. Yes.

Mr. LAUCK. I just wanted to get that clear. Proceed.

Mr. FERGUSON. At that time in the entire system there was a total number of 1,639 runs. The average pay time—by that I mean the platform time, the actual time for which they received compensation—was 9 hours and 28 minutes for each run average.

Out of that number of runs there were 792 in which the men had to report twice to complete their day's work—what are known as two-piece runs; and there was a total of 242 in which they had to report three times to complete their day's work, known as three-piece runs; of straight runs there was a total number of 605. There were 1,035 of those runs that were completed inside of $12\frac{1}{2}$ hours, in which the outside time did not extend beyond $12\frac{1}{2}$ hours.

Mr. LAUCK. I think it would be well to explain to the commission, Mr. Ferguson, what you mean by "outside time." You spoke of pay time as 9 hours and 58 minutes. Now, you are using the term "outside time." Will you explain that, please?

Mr. FERGUSON. By outside time we mean the time that elapses between the time that a man starts his scheduled day's work and the time that he finishes it. For instance, a man starts a run at 6 o'clock in the morning, and works until 11 o'clock in the forenoon, and goes

on again at 2 o'clock in the afternoon, and completes his day's work at 6.30 in the evening; we would say that his outside time was $12\frac{1}{2}$ hours on that run; inasmuch as it takes $12\frac{1}{2}$ hours in which to complete his day's work.

Mr. LAUCK. That is the whole spread of time that he was on duty, but within that time he was only paid an average of 9 hours and 28 minutes—about 3 hours that he was not compensated for?

Mr. FERGUSON. Three hours that he was off duty as far as compensation was concerned, but his time was not his own. There were 1,035 of those runs that were completed inside of $12\frac{1}{2}$ hours. Probably over half of those runs went beyond 12 hours in which to complete them. It is a rare thing for a run in which a man has to report twice a day to complete it, to be completed in less than 12 hours. There were, however, 60 of those runs that were completed in between $12\frac{1}{2}$ and 13 hours, and there were 95 that went beyond 13 hours and were completed before the expiration of $13\frac{1}{2}$ hours.

There were 114 of them that were completed between $13\frac{1}{2}$ and 14 hours. There were 96 completed between 14 and $14\frac{1}{2}$ hours. There were 54 completed between $14\frac{1}{2}$ and 15 hours; 45 of them went beyond 15 hours and were completed in less than $15\frac{1}{2}$ hours; 39 were completed in from $15\frac{1}{2}$ to 16 hours; 30 were completed in from 16 to $16\frac{1}{2}$ hours; 24 of them were completed from $16\frac{1}{2}$ to 17 hours; 30 of them were completed between 17 and $17\frac{1}{2}$ hours; 16 were completed in from $17\frac{1}{2}$ to 18 hours; and 1 went beyond 18 hours and was completed inside of $18\frac{1}{2}$ hours.

Commissioner MAHON. You say 30 runs went 17 hours. How many men would that affect?

Mr. FERGUSON. That would affect at least 60 men. It is impossible, of course, to tell from this table whether it would affect more than that or not, but it is quite possible that it did, because of the fact that the runs on the lines on which trailers are operated require three men to operate a run—two conductors and one motorman—so if any of those runs were on the lines on which trailers are used, there would be three times the number of runs that are spoken of here. If there were only two men to the car, that would represent 60 men. But if they happened to be all trailer runs there would be 90 men.

The same way with the runs that go from $17\frac{1}{2}$ to 18 hours. In case there were trailers used on all those runs, there would be 48 men affected.

Commissioner MAHON. When you speak of your schedule run there—for instance, the $12\frac{1}{2}$ -hour runs—does that actually tell the time that those men may have worked?

Mr. FERGUSON. Oh, no; this is the schedule work to which they are assigned. For instance, in connection with that, it might be well to unfold one of these schedules that we brought along for the benefit of the commission, if they care to look at them. For instance, this represents a scheduled day's work that the man holding run No. 33 is assigned to. He is assigned regularly to go out at 4.55 in the morning, and gets relieved at 12.33 midday, and goes on again at 4.27 in the afternoon and completes his day's work at 6.06. That is his scheduled day's work. Now, he may be rightfully called upon to perform some more service after that or before that, if the

run was so situated that he could be used before going out, or in this relief period from 12.43 at noon until 4.27 in the afternoon—he may be called upon in there. In fact, his time is not his own at any of the time. He may be rightfully called upon at any time to perform services other than provided for in his schedule run. However, that table only applies to the scheduled day's work.

Commissioner MAHON. It would not show the extra work that the man might have to do in addition to his regular scheduled time?

Mr. FERGUSON. No; there is nothing shown in that submission other than the regular schedule work.

Commissioner MAHON. But is there extra work beyond that?

Mr. FERGUSON. Oh, a great deal of it. It is a rare thing for a day to pass in which a good many men, especially on the large lines, are not called upon to perform some extra work in connection with the operation of this scheduled day's work.

Commissioner GADSDEN. That would be overtime work?

Mr. FERGUSON. That would be overtime work, known as extra work. If a night man is called out in the morning to perform extra work and he happens to perform five hours, he does not happen to get any extra pay. He works at the straight regular rates of pay. Time-and-a-half additional affects the day men, however, if they are called upon after the performance of their regular day's work.

Commissioner MAHON. It does not affect the night man if he is called out in the morning?

Mr. FERGUSON. Not if he performs that much work; he has to do it at certain times.

Commissioner MAHON. A man getting in at 12 o'clock 'to-night might be called out in the morning to do this extra work?

Mr. FERGUSON. He might be called out to take a car out at 5 o'clock and work until 10, for which he would receive the straight-day regular rates of pay.

Commissioner MAHON. Does that happen?

Mr. FERGUSON. Yes; in a great many cases.

Commissioner GADSDEN. Do you mean regular men or extra men?

Mr. FERGUSON. Regular men.

Commissioner GADSDEN. Men with regularly assigned runs?

Mr. FERGUSON. Men with regularly assigned runs. They are the men who are holding these runs further down on the schedule. For instance, that man there is regularly scheduled to go out at 3.17 in the afternoon and complete his run at 11.39 at night. He will operate that run and then he may be called out to operate that run at 5 o'clock the next morning and work until 10. He would only receive straight pay for that—straight pay all the way through. Any of these men from here down on the schedule may be called out the next morning and work until 10. He would only receive straight pay for that—straight pay all the way through. Any of these men from here down on the schedule may be called out in the morning.

Commissioner MAHON. The fact is, Mr. Ferguson, that this table reflects the actual conditions there as to the hours of labor and gives this commission the real condition that prevailed at that time in Detroit?

Mr. FERGUSON. Yes.

Commissioner MAHON. That is the point of this exhibit. In the arbitration case we both agreed upon the same schedule, and that is

their analysis of the schedule, and we have the same analysis and a different one, but we thought it best to use theirs as there is no dispute about that, as it was submitted by them. Now, that was in what year?

Mr. FERGUSON. The spring of 1917.

Commissioner MAHON. What are the conditions now, Mr. Ferguson, in comparison with that? Is there any change?

Mr. FERGUSON. There are some changes, but the conditions have not been improved for the reason that some of those long outside hours have been reduced, but they have been reduced by compelling these men up here at the top of the lines who are the old men 20 and 30 years in service to sacrifice their straight day's work which they had previously, and they are compelled to work runs now which extend over a long period of time. For instance, here is one of the last schedules out on one of the largest lines in the city, in which the second-oldest crew on the division is compelled to go out at 4.58 in the morning, gets relieved at 10.39 for dinner hour, goes on again at 1.57 in the afternoon and completes his day's work at 5.28 at night, the company taking advantage of the complete limit of time in which they are allowed to complete that run, which is 12½ hours, for which they only receive 9 hours 12 minutes compensation. That affects the second-oldest crew on that division, who are probably 30 years in the service; and there is only one crew on that entire division which is allowed now the privilege of working a straight day's work. It begins at 4.32 and completes its work at 2.30 in the afternoon. Previous to that time there were a greater percentage of those runs. The outside hours have been somewhat reduced through the efforts of the organization and the award that was given after this evidence was submitted, but at the sacrifice of these older men in service.

These runs here—I tabulated a few of them. The second one, as I stated, is required to put in 12 hours and 30 minutes outside time to complete his day's work, and he receives 9 hours 12 minutes. The third-oldest crew is required to put in 12 hours and 26 minutes—that is, the consumed time—and he receives 9 hours and 23 minutes platform time. The fourth man uses the full limit, 12 hours and 30 minutes, and he receives 9 hours and 33 minutes. The fifth has 12 hours and 28 minutes outside time, and he receives 9 hours and 31 minutes. The sixth man has 12 hours and 29 minutes outside time, and he receives 9 hours and 18 minutes. The seventh man uses 12 hours and 29 minutes, and he receives 9 hours and 36 minutes.

Commissioner MAHON. There is but one run upon that schedule that would complete its straight time in 9 hours?

Mr. FERGUSON. Just one day run. There are four night runs.

Commissioner MAHON. So if there is anything, it is in worse condition than it was before the War Labor Board award?

Mr. FERGUSON. Well, before the award of the arbitration board. This was the award of the Grinnell arbitration.

Commissioner MAHON. That was not changed by the War Labor Board?

Mr. FERGUSON. No; it did not touch those conditions.

Commissioner GADSDEN. Do you present that as a typical case of the entire country or just as bearing upon Detroit?

Commissioner MAHON. We think it is typical of the industry.

Commissioner GADSDEN. You only have one run there that the man completes in time?

Mr. FERGUSON. Yes. That, of course, is on the one line; that is on the Gratiot Avenue line.

Commissioner MAHON. What is the next?

Mr. FERGUSON. There is the Woodward schedule, in which there are 16 crews on that line who complete their day's work straight, but—

Commissioner MAHON. How many crews work?

Mr. FERGUSON. Out of 94 runs there are 16 runs in which the day's work is completed straight, but it has resulted in the distribution of the other work being such that the men, or a great number of them, are required to report three times in order to complete their day's work.

Commissioner GADSDEN. Can you give us the percentage of the total runs that are completed straight? I think we get rather a one-sided view—at least I got a wrong impression by reading only one division.

Mr. FERGUSON. Well, I have not the exact figures—

Mr. LAUCK. We have that here. That shows 605 straight runs and 1,639 altogether, which would be about 39 per cent altogether of straight runs.

Mr. FERGUSON. Well, that was the condition which existed in the spring of 1917, but that percentage has been reduced greatly since then, as I explained, as a result—

Mr. LAUCK. Now, on this best railroad you mentioned 16 out of 94, or only 17 per cent—

Mr. FERGUSON. What is that?

Mr. LAUCK. That is, on the Woodward line, which you said was the best line, there are only 16 out of 94, which would be 16 or 17 per cent?

Mr. FERGUSON. Yes. This is a recent schedule of the Woodward line.

Commissioner MAHON. The fact is that the War Labor Board requirements were that we would remain on the conditions that we had when the war broke out, and this arbitration established the conditions. Those were the conditions prevailing in 1917, arbitrated upon, and they are practically the conditions that prevail on that system to-day. Of course there is a variation in the different systems, but Detroit and Cleveland are typical of the big cities. They are typical of the big city conditions, with the exception that in Chicago under our new arrangements we have established the eight-hour day. That is what we are struggling for. The old conditions of labor we are complaining of—this is typical of them in the large cities. There is a difference in the smaller cities where the opportunity of making better schedules prevails than in the big cities.

Mr. WARREN. You have the eight-hour day in Boston, Mr. Mahon?

Commissioner MAHON. We have the eight-hour day in Boston and the eight-hour day in Chicago—two big cities. That is what we are struggling for and one of the things that we want this commission to take into consideration in any recommendation that it makes for these people, and for that reason we are showing this old condition that prevailed that we are struggling to get away from.

We do not want to take any too much of the time of the commission on that, but I think that reflects the conditions pretty generally in the large cities.

Mr. FERGUSON. There is another feature that has not been mentioned here that is not brought out in any of the tables or anything of that nature, and that represents a considerable volume of complaint from our men, and that is the unreasonable dinner hour they are compelled to accept. In some instances it is as early as 8.30 in the morning, and that the only relief period they have, and they may be called back again at 10 or 11 perhaps to complete their day's work. Here is one of the Trumbull schedules. The man is relieved at 8.34 for his dinner hour and another at 8.51 and another at 8.59; another at 8.39 and another at 8.45. Those are the hours at which they are relieved to go and get their dinner.

This schedule affects the Grand Belt on the West Side. It only has one run in which the crew complete their day's work in one period of work.

The Trumbull schedule I just previously spoke of has none; in fact, the oldest crew on the division has to report at 5.15 in the morning, get relieved at 12.05, go back on again at 3.11, and they are relieved at 4.26 and go back on again at 4.46 and get through at 5.43; three periods of works to the oldest crew on the division, for which they receive 9.22 minutes time.

The CHAIRMAN. Is it possible to rearrange your schedule so that all the men can be relieved at certain times?

Mr. FERGUSON. We do not expect that all men can be relieved at a certain time. That is out of the question. Their contention in that respect is that they should be relieved, providing they are going to be compelled to operate a run in which a dinner hour is provided; that is, a run other than what is known as a straight run, that the dinner hour should be somewhere near the dinner time.

The CHAIRMAN. What is your suggestion along that line?

Mr. FERGUSON. Well, we think that 11.30 or around 11.30 is a reasonable time to be relieved where a man is compelled to go back at 1 or 1.30 whatever the case may be. Where a man goes out at 5 in the morning and is compelled to report twice to complete his day's work, which consumes the entire day, he would naturally want his midday meal around the noon hour.

Of course we expect variation in that, as they could not all be relieved at the same time, but we think in our occupation that there should be at least a large percentage of the runs in which the men can complete their day's work in a straight period of time, because it is a strenuous occupation and can not be given any too much consideration along that line. Where the day is chopped up, taking it all the way from 12½ to 16 or 17 hours in which to put it in, and they are compelled to work overtime in connection with that, they are simply a worn-out lot of employees all the time. It is one thing that the company has never given a proper amount of consideration to. The occupation is hard and the strain on them is great, and they are compelled to operate their cars through crowded sections of the city, and the hours have been long.

Commissioner MAHON. This table reflects also the interurban men, does it?

Mr. FERGUSON. Yes.

Commissioner MAHON. Why not read that into the record, so that the commission will understand the hours prevailing for interurban men as well?

Mr. FERGUSON. That which I have read was the total of all—city and interurban.

Commissioner MAHON. I thought you read the total of the city?

Mr. FERGUSON. No; I read the total of all. The bottom total here is the total of all.

Commissioner MAHON. I see.

Mr. FERGUSON. Of course, it is separated here, however.

Commissioner MAHON. Why not give us both the city and the interurban so that the commission will clearly understand the condition?

Mr. FERGUSON. Well, that would be very easy. The total number of runs in Detroit City is 1,382, and the average pay time in Detroit City was 9 hours and 29 minutes, which was one more than the average of the entire system.

The number of runs out of that 1,328 that were completed in 12½ hours or less was 826.

The number that went beyond 12½ and were completed inside of 13 was 39.

From 13 to 13½ the number was 87.

From 13½ to 14 it was 108.

From 14 to 14½ it was 94.

From 14½ to 15 it was 53.

From 15 to 15½ it was 39.

From 15½ to 16 it was 38.

From 16 to 16½ it was 29.

From 16½ to 17 it was 22.

From 17 to 17½ it was 30.

Commissioner MAHON. Thirty what?

Mr. FERGUSON. Thirty runs. This is all runs that I am speaking of.

Commissioner MAHON. To do what?

Mr. FERGUSON. In which to complete their day's work; from 17½ to 18 hours there were 16 runs.

From 18 hours to 18½ there was one run.

Then, on the interurban and interurban cities there were 209 runs that were completed inside of 12½ hours.

Commissioner MEEKER. What is the total number of runs?

Commissioner MAHON. Give the swing of all of that right straight through?

Mr. FERGUSON. The total number was 257.

Mr. LAUCK. That is interurban?

Mr. FERGUSON. Interurban and interurban cities—small cities outside.

Mr. LAUCK. That is all.

Mr. WARREN. What was the pay time on those?

Mr. FERGUSON. The average platform time you mean?

Mr. WARREN. Yes.

Mr. FERGUSON. That is not averaged here by itself. Yes, it is, too. It is 9 hours and 19 minutes. Then there were 21 of those runs that were completed inside of 12½ and 13 hours.

There were eight of them that went between 13 and 13½ hours in which to complete; 6 of them between 13½ and 14; 2 between 14 and 14½; 1 from 14½ to 15; 6 from 15 to 15½ hours; 1 from 15½ to 16; 1 from 16 to 16½ hours; 2 from 16½ to 17 hours in which to complete it.

The CHAIRMAN. Do you intend to place that chart in the record, Mr. FERGUSON?

Mr. FERGUSON. Yes; I will gladly submit this.

The CHAIRMAN. Well, that speaks for itself. The figures are there.

Mr. FERGUSON. Yes; it is all analyzed. Of course, these things are not easily understood sometimes by those who are not so much familiar with them.

The CHAIRMAN. Just put the chart in with a very few explanations, and then it is perfectly understandable, I think.

Mr. FERGUSON. Yes. This is the detailed analysis of the schedule conditions at that time which were fully analyzed by the association when we presented our case; in which each line is analyzed by itself. If the commission would care, I would gladly submit that, if I might have it back. It is kept with the records of the arbitration, and it is the only copy that I have.

Commissioner MAHON. You can have that prepared and send it to the commission.

Mr. FERGUSON. Yes; I can do that. Of course, all it is is an analysis of the blue print. That has the totals of everything.

The CHAIRMAN. You may either do as Commissioner Mahon suggests or else leave that with us and we will see that it is returned. Suit your own convenience.

Mr. FERGUSON. That will be all right; if I can be sure that it will be returned, I would just as soon leave it.

The CHAIRMAN. It will be. Mr. Ogburn will see that it is returned as soon as we have reported our findings.

Mr. FERGUSON. Very well, sir.

These schedules I brought along, and if the commission cares to have those submitted, I will gladly submit those in the same way. They are taken out of our files in the office, and I suppose they could be looked after the same as the other; if they are of any advantage to the commission I shall be glad to submit them.

The CHAIRMAN. Very well. You will see to it, Mr. Ogburn, that the files that the witness leaves with us are returned?

Mr. OGBURN. Yes.

Mr. LAUCK. How long have you been connected with the Detroit railways?

Mr. FERGUSON. Seventeen and one-half years.

Mr. LAUCK. You are now the official of the local organization in Detroit, the executive head?

Mr. FERGUSON. The business head of the organization. I have been for two years.

Mr. LAUCK. The question I would like to ask you is: Do you consider the work of motormen and conductors as a skilled occupation, as a result of your experience of 17½ years? You have mentioned somewhat of the pressure and hardship of the work, and also of the strain on the men in going down through the crowded city districts. Do you consider it a skilled occupation?

Mr. FERGUSON. Yes; I do.

Mr. LAUCK. Can you state any reasons why you consider it as such as distinguished from ordinary labor?

Mr. FERGUSON. Well, one feature of it is that we do not receive our highest rate of pay until after the expiration of a year from the time we enter the service; and other features of it that I mentioned—it is something that everybody can not do.

Mr. LAUCK. You consider that there is a year's apprenticeship from the fact that you have to wait a year before you get your maximum rate of pay?

Mr. FERGUSON. Yes. We do not receive our maximum rate of pay until after the expiration of a year, and in some instances 13 months.

Mr. LAUCK. Of course, there is a large element of responsibility in the occupation both as regards property and human lives, is there not?

Mr. FERGUSON. Yes; there is.

Mr. LAUCK. You spoke of the nervous strain of going through heavy traffic. That is what suggested the question to me. Is there any mechanical knowledge required?

Mr. FERGUSON. Well, some; yes. More of the interurban men than there is of the city men. There is some difference there. Of course, the mechanical department looks after the majority of that line of work in the city.

Mr. LAUCK. The motorman has to understand the mechanism of the car?

Mr. FERGUSON. Oh, yes; because emergencies are arising every little while in which he is required to handle some situation that he is confronted with, in which that feature of it enters.

Mr. LAUCK. Just one more question: Is this Local 26, of which you are the head, composed mostly of motormen and conductors?

Mr. FERGUSON. Yes.

Mr. LAUCK. What percentage? Almost all?

Mr. FERGUSON. Practically all.

Mr. LAUCK. There is one other thing I wanted to ask you about. What are the regular hours in Detroit? There are no statutory hours; of course; but are there any hours by agreement as to what constitutes a regular run?

Mr. FERGUSON. Any run paying 8 hours or over is recognized as a regular run, if it is completed within the required number of hours, which is 12 hours or——

Mr. LAUCK. You mean you have a workday of 12 hours in which you have a pay period of 9 hours and 28 minutes? That is the average experience; but what is your standard workday—the spread, in other words—and what is supposed to be the working time within that spread?

Mr. FERGUSON. The contract provides that the workday shall be as near 9 hours as it is possible to make it, and the company is allowed 12½ hours in which to complete that day's work.

Mr. LAUCK. In other words, you have a 9-hour day which must be completed within 12 hours or 12½ hours?

Mr. FERGUSON. Understand that only affects, necessarily, 52 per cent of the runs on each schedule. The other 48 per cent of the runs may go over an elapsed time or spread period of any limit; but there

must be 52 per cent of them, at least, on each schedule that are completed inside of $12\frac{1}{2}$ hours.

Mr. LAUCK. Does actual experience, operating performance, bear out that contract? There is not 50 per cent of the runs completed in that period, is there?

Mr. FERGUSON. Yes; there is 52 per cent of them at least completed inside of that. In a great many instances the division point is about the limit. Of course, occasionally a real small line, in which there is nothing much operated, only just regular service by two or three or three or four cars—of course, the percentage would go up to practically 100; but in practically all cases where any volume of men are affected, the percentage is down just about to the limit. In fact, in some cases that are fresh in my memory now, it is down to absolutely the limit; one more run would throw it outside. It is just inside, and that is all.

Mr. LAUCK. Your contract work day, then, is $12\frac{1}{2}$ hours itself, is it not—time on duty, required to be on duty?

Mr. FERGUSON. Yes. The contract work day is 12 hours. All runs must be completed—it reads something like this: That 52 per cent of the runs shall pay 8 hours or over, as nearly 9 hours as possible, and shall be completed inside of 12 consecutive hours; but where it is absolutely necessary to accommodate the service or complete the schedule they are allowed a half-hour leeway in which to make these runs, which would give them $12\frac{1}{2}$ hours in which to complete them.

The result of that is that they take advantage of the half-hour in practically all cases; in fact, in the second run on that large schedule that I refer to, they use the full limit of $12\frac{1}{2}$ hours, which is a half-hour outside of the spirit of the agreement, which is that it should be completed inside of 12 hours; but it was understood that in cases of emergency they might be allowed a half-hour in which to complete a run, and they take advantage of the half-hour and apply it to practically all of the runs in which relief period is made. Have I made that clear?

Mr. LAUCK. I just wanted to bring out what the standard workday was by agreement, which is 12 hours, is it not? They may require you to work 12 hours?

Mr. FERGUSON. Yes.

Mr. LAUCK. Yes.

Commissioner SWEET. You gave us some instances there where men were on duty, if I understood you correctly, about 18 hours, did you not?

Mr. FERGUSON. Yes; there is one instance. There was one crew—whether it would be two men or three men, of course, I have no way of knowing from this table, because as I explained, where a trailer is used on one of these runs there are three men affected, and where there is no trailer there would be two men—there was one run that went beyond 18 hours and another $18\frac{1}{2}$. It was completed somewhere in that half-hour period between 18 and $18\frac{1}{2}$ hours. For instance, it was beyond 18 hours, the time elapsed between the time he started his schedule run and the time he completed his day's work was beyond 18 hours—between 18 and $18\frac{1}{2}$.

There were 16 of them that went beyond $17\frac{1}{2}$ hours and were completed in 18 hours or less.

Commissioner SWEET. Were the conditions of that kind provided for in the contract that you have referred to, with regard to the 12 hours or 12½ hours, making the half-hour leeway?

Mr. FERGUSON. As I stated, there must be at least, according to our contract, 52 per cent of the runs on each line completed in 12½ hours or less.

Commissioner SWEET. I see. And the other 48 per cent of the runs?

Mr. FERGUSON. The other 48 per cent of the runs are these runs that I described as going over unreasonably long hours.

Commissioner SWEET. I understand now.

Mr. FERGUSON. They have that privilege and still have it. It did not relieve the condition—only in a financial way.

Commissioner SWEET. With regard to the 48 per cent was there a limit of 18 hours?

Mr. FERGUSON. No; no limit on it.

Commissioner SWEET. There was no limit on it?

Mr. FERGUSON. None whatever.

Commissioner SWEET. Take a man who was included in the 52 per cent class; would the time outside of the 12 hours or 12½ hours be entirely his own, or could he be called upon in emergency by the company?

Mr. FERGUSON. He could be called upon.

Commissioner SWEET. He could be called upon?

Mr. FERGUSON. Yes. He could be called upon at any time; either before his run goes out or during that relief period, which is supposed to be his dinner hour, or after he had completed that day's work.

Commissioner SWEET. If he is called upon to work in addition to the 12½-hour period, would he get extra pay?

Mr. FERGUSON. Yes. If he was a day man, a man holding a day run, and he was called upon to perform work after having completed that day's work, or during that relief period, he would receive time-and-a-half for that work. That condition did not exist until the National War Labor Board gave us that in their award a little over a year ago.

Commissioner SWEET. What do the men care most for—their time or the extra pay? In other words, do they like to be called upon to do extra work, if they get extra pay?

Mr. FERGUSON. They do not. They are perfectly satisfied to go home when they get the day's work completed.

Commissioner SWEET. That is their preference?

Mr. FERGUSON. That is the preference of practically all of them.

Commissioner SWEET. Has it been a common thing on the Detroit railway to call on them to do extra work for extra pay?

Mr. FERGUSON. It is customary to call on them to do the extra work. As I say, we never had any extra pay until after the award from the National War Labor Board came down. But it is customary, and always has been, to call upon them.

Commissioner SWEET. When did that award go into effect?

Mr. FERGUSON. That award went into effect on June 1, 1918.

Commissioner SWEET. Since that time has there been very much call upon the men to do extra work for extra pay?

Mr. FERGUSON. Oh, yes; a good deal of it.

Commissioner SWEET. For which they are paid time-and-a-half? . . .

Mr. FERGUSON. They are, with the exception of a night man, a man operating regularly a night run; if he is called out in the morning to perform extra service, in a great many instances he gets no extra compensation for that whatever.

Commissioner SWEET. Is that provided for in the contract?

Mr. FERGUSON. It is provided for in the National War Labor Board's award.

Commissioner SWEET. In the award?

Mr. FERGUSON. Yes; which is a part of the contract, of course.

Commissioner SWEET. That is all.

Commissioner MAHON. What wages did you receive under the National War Labor Board award?

Mr. FERGUSON. We received 40 cents an hour for the first 3 months, 46 cents for the next 9 months and 48 cents thereafter.

Commissioner MAHON. After the expiration of one year?

Mr. FERGUSON. After the expiration of one year; yes.

Commissioner MAHON. What wages are you receiving now?

Mr. FERGUSON. Fifty cents for the first three months' service, 55 cents for the next nine months and, after the expiration of the year, 60 cents. Of course, we have a peculiar condition there, too, in which some men are required to work 13 months before they get their maximum rate of pay. That is owing a contract, of course; but it works a hardship on some men to the extent of working an extra month without receiving the high rate of pay, which makes their apprenticeship 13 months instead of 12.

Commissioner MAHON. Commissioner Sweet asked you about men working overtime. Is it not a fact that during the entire war period Detroit was short two or three hundred men, and all your men had to work overtime all the time?

Mr. FERGUSON. I believe the average shortage, if my memory serves me right, was about 400 men during the war period. It averaged that all the time, about 400 men short, which resulted in practically all men being required to work overtime nearly every day.

Commissioner SWEET. Was that with or without extra pay?

Mr. FERGUSON. It was with extra pay with the exception of some cases where a man was called upon to perform an extra morning service; in those cases they got no extra pay for it.

Commissioner MAHON. That extra pay came, however, after the War Labor Board award?

Mr. FERGUSON. Yes.

Commissioner MAHON. But your men cheerfully met it during the whole period of the war?

Mr. FERGUSON. They met it the same before as after the war. They were called upon to perform this extra service and performed it. The overtime which was performed by men at that time probably would surprise us all if it was tabulated. They were working all hours.

The CHAIRMAN. How do the men regard their present wage schedule?

Mr. FERGUSON. Their wage schedule?

The CHAIRMAN. Yes.

Mr. FERGUSON. They do not think it is sufficient to meet the costs that they are confronted with.

The CHAIRMAN. Are they at this time asking for an increase in rates?

Mr. FERGUSON. Not at this time; there are no negotiations on. Of course there are a great many of them disappointed.

Mr. LAUCK. The schedules you spoke of are normal schedules, are they not? These hours are not due to abnormal wartime conditions, but they are schedules worked out between your men and the company?

Mr. FERGUSON. Yes; both. There were no abnormal conditions existing at the time these tables were prepared or the schedules I have shown here, because those are late schedules.

Mr. LAUCK. They are regular runs, are they not, made by agreement?

Mr. FERGUSON. Yes; there is none of the work that has been described on these tables that in any way tells the story of overtime or extra work.

Mr. LAUCK. That is what I was getting at.

Mr. FERGUSON. No; that is all in the dark. There is no way of tabulating it without going over——

Commissioner MAHON. It is all in addition to these schedules?

Mr. FERGUSON. Yes; the work day we have outlined here is the regular schedule workday that men are required to work every day.

Mr. LAUCK. That is all.

The CHAIRMAN. Do you wish to ask this witness any questions, Mr. Warren?

Mr. WARREN. I just wish to ask one thing. Of course it is perfectly clear to the commission as it is to the street-railway men here, I think: The time outside of the platform time which you are working is ordinarily a man's own time, is it not; I mean he is not required to be on duty?

Mr. FERGUSON. Not without special notification.

Mr. WARREN. Yes; that is what I mean.

Mr. FERGUSON. For example, we might illustrate it this way: If a man's relief hour is 11 o'clock in the morning he is scheduled to report again at 2 in the afternoon, or 1 in the afternoon, as the case might be, of course that time in there is his own to some extent. He can go home and get his dinner—that is about all it amounts to. If not notified to perform some extra work during that time, his time is his own, to that extent. Of course there is no opportunity to do anything but go home and get his meals, but he is not required to stay around the car-barns. I suppose that is the point you desire to bring out.

Mr. WARREN. Yes.

Mr. FERGUSON. No; he is not required to stay around the car-barns unless specially notified.

Mr. WARREN. And any work he is asked to do beyond his regular time he is paid either straight time additional or time-and-a-half, according to the circumstances?

Mr. FERGUSON. Yes; any platform time he is required to perform in excess of that he would receive excess compensation for, either at the straight rate of pay or time-and-a-half.

Commissioner MAHON. That only affects your 52½ per cent, does it not?

Mr. FERGUSON. No; that affects them all.

Commissioner MAHON. I do not know that you get my meaning of that.

Mr. FERGUSON. Maybe not.

Commissioner MAHON. It affects them all; the men over the 52 per cent are practically on duty all the time and are subject to call all the time, are they not?

Mr. FERGUSON. Yes. In fact, they are subject to call all the time. They can all be called any time that they see fit to call them. Of course, he is known as an extra man. The men included in the 48 per cent are known as extra men and subject to the extra men's conditions, if that is your point.

Commissioner SWEET. Is it a common thing among the conductors or motormen for men to break down—their health give way—nervous breakdowns; are they frequent?

Mr. FERGUSON. Yes; I would say that it is in a good many cases in our local. Of course, in that respect, outside of records, as it affects the entire association, I can only speak of our own local, but I know of a good many cases where they practically go all in. They have to be given some other line of work or else have to seek other work.

Commissioner SWEET. Your own health appears to be good.

Mr. FERGUSON. Oh, well, yes; but then I started in the business when I was rather young.

Commissioner SWEET. But you never had any nervous breakdown because of it?

Mr. FERGUSON. No; I have not had any nervous breakdowns.

Commissioner SWEET. You look the picture of health.

Commissioner MAHON. For the benefit of Mr. Sweet, I have a complete tabulated death list of the membership of our organization for the past two years showing every cause of death to our membership, which is in my report, and it will give him a correct description of what the men of this occupation have to contend with.

The CHAIRMAN. Does this report make a comparative study of the condition of health in your industry as compared with other lines of industry?

Commissioner MAHON. No. Of course, that is a big undertaking.

Commissioner SWEET. But that will go into the record, will it?

Commissioner MAHON. Well, I can put it in. Your question brought it to my mind. I have it tabulated over two years and it shows every cause, and I think it will surprise a great many people; that it will show a great many of our people have died from tuberculosis, due to the occupation.

Mr. FERGUSON. That copy I brought with me I can submit to the commission.

The CHAIRMAN. You are excused, Mr. Ferguson.

Your next witness, Mr. Lauck.

Mr. LAUCK. We would like to call Mr. William M. Rea.

STATEMENT OF MR. WILLIAM M. REA.

Mr. LAUCK. Will you state your name for the record?

Mr. REA. William M. Rea.

Mr. LAUCK. You are at present actively employed as a conductor on the Cleveland Railway Co.?

Mr. REA. No; I am financial secretary of Division 268 of the Amalgamated Association and have been for seven years.

Commissioner GADSDEN. Where is that, Cleveland?

Mr. REA. Cleveland; yes.

Mr. LAUCK. You are a representative of the local organization there and have had a number of years' experience with this company, have you not?

Mr. REA. Prior to the time I entered the office I had eight years' experience as a conductor.

Mr. LAUCK. And seven years since; so you have had 15 years' experience with the company?

Mr. REA. Yes.

Mr. LAUCK. Is your local composed practically of all motormen and conductors?

Mr. REA. All of them with the exception, I might say, of men who have retained their membership since they left the employment; but we only represent the motormen and conductors.

Mr. LAUCK. Have you a copy of the 1914 schedule and also of the present schedule which will explain to the commission the hours of duty and rate of the runs and so forth?

Mr. REA. Yes.

Mr. LAUCK. Will you please produce that? You had better take up each line in order—like the St. Clair line, and go through with it.

Mr. REA. This 1914 schedule data was prepared at that time to go before an arbitration board.

On the St. Clair Avenue schedule; Schedule No. 844, in effect October 1, 1913:

There are 4 men who complete their day's work in $9\frac{1}{2}$ hours; 4 men complete their day's work in $11\frac{1}{2}$ hours; 9 men complete their day's work in 12 hours; 51 men complete their day's work in $12\frac{1}{2}$ hours; 12 men in 13 hours; 26 men in $13\frac{1}{2}$ hours; 6 men in 14 hours; 4 men in $15\frac{1}{2}$ hours; 8 men in 16 hours; 2 men in $16\frac{1}{2}$ hours; 4 men in 18 hours; 14 men in $18\frac{1}{2}$ hours—that is, required to complete their day's work.

The schedule on the same line, effective May 16, 1919, Schedule No. 1573:

There are 6 men who complete their day's work in 8 hours. These are the night-car men, which change was made in the award of the National War Labor Board, effective last August—that is, August, 1918.

There are 2 men who complete their day's work in $9\frac{1}{2}$ hours; 2 in 10 hours; 1 in 12 hours; 26 men in $12\frac{1}{2}$ hours (I would just like to say that these figures I am reading are all men; they are not runs); 67 men in 13 hours; 20 men in $13\frac{1}{2}$ hours; 23 men in 14 hours; 6 men in $14\frac{1}{2}$ hours; 16 men in 15 hours; 6 men in $15\frac{1}{2}$ hours; 3 men in $17\frac{1}{2}$ hours; 9 men in 18 hours; 11 men in $18\frac{1}{2}$ hours; 5 men in 19 hours.

The next schedule is Superior Avenue.

Commissioner MAHON. What is the pay time on that run?

Mr. REA. The average pay time on the St. Clair run, under the schedule effective in 1914, was 8 hours 36 minutes. The average time of completion was 13 hours 43 minutes. The average lost time per man on that schedule was 5 hours 7 minutes.

Mr. LAUCK. Suppose you just give us those averages for the other lines—for the Euclid run, the Woodland run—that is, the average outside time, the average pay time, and the average time lost—that is, for the Superior, Euclid, Woodland, and so on. Have you that convenient, so you can state it?

Mr. REA. Do you just want the average on the present schedule?

Commissioner MAHON. I think you ought to give it on all of them as you go along.

Mr. REA. Well, I am willing to give you all the information I have here, whatever is the shortest.

On the present schedule—that is, schedule 1572—St. Clair run, effective May 16, 1919, the average time of completion on that schedule per man was 13 hours 46 minutes. The average time paid was 10 hours 15 minutes per man and the average time lost per man was 3 hours 31 minutes.

Commissioner SWEET. Just exactly what do you mean by time lost? The time he was not working?

Mr. REA. The time a man starts to work in the morning until he completes his day's work at night.

Commissioner MAHON. The time he does not get paid for.

Commissioner SWEET. Read my question again.

(The previous question was then read as above recorded.)

Mr. REA. That is the time he is not working, that he does not get paid for. A great many of these runs around 13, 14, and 15 hours—these men show up for work around 4.35 to 5.30 in the morning. They work for probably two and one-half hours and are relieved for maybe an hour or an hour and a quarter, return to work, work probably two and one-half or three hours, again have another relief, go on in the evening and work until probably 8 or 9 at night.

Then the other men, who require from 15 up to 18 or 19 hours to complete their work, go to work around 5 to 5.30 in the morning; they work probably three and a half or four hours. They are then compelled to return in the evening around 4 o'clock and work until 12.30 or 1 o'clock that night and again return for duty on the following morning at 5 o'clock.

Commissioner SWEET. And what you speak of as lost time is the time they are actually working?

Mr. REA. They are not actually working. But take a man who is compelled to show up—especially on what we call our three-swing run—he might as well be working, because he has not time to do a thing. He is relieved for an hour in the forenoon and an hour or two in the afternoon.

Commissioner SWEET. I know; he is subject to call in that period.

Mr. REA. And it is not always possible for all men to live within walking distance of the car-barns, because in some districts where the car-barns are the rent is so high they can not afford to live in those districts and their entire time in those swings is taken up in going to and from in that period, which makes a man practically on duty all the time. Does that answer your question?

Commissioner MEEKER. The men are paid only for the time they actually work?

Mr. REA. Actually work. Take on that St. Clair schedule that I spoke of: The men are paid 8 hours and 34 minutes, or 36 minutes, and it takes them 13 hours and 43 minutes.

Commissioner MAHON. That is the average?

Mr. REA. That is the average.

Commissioner MAHON. What is the longest time on that line?

Mr. REA. On that line? Well, now, there are 5 men that require 19 hours, 11 men 18½ hours, and 9 men 18 hours.

Mr. WARREN. What are the actual working hours of those 5 men, when they report and when they stop? Have you given those?

Mr. REA. I have it in another blue print. Now, a man who requires 19 hours to complete a day, he reports in the morning for his run at 5.18; he works until 7.20; returns to his work at 4.26 p. m.; completes his day's work at 12.23 a. m. The next day he has to go through the same procedure, returning to work at 5.18 in the morning.

Mr. WARREN. He has a longer lay-off in the middle of the day than he has at night, apparently?

Mr. REA. He has; yes. There is no time on these runs where a man can get 8 hours consecutive rest, although in the State of Ohio we have a law that requires that all men shall be off duty 8 consecutive hours. And you will notice in that schedule or in a great many, if you want to go over them, that they have just obeyed that law. That man might take 45 minutes to go home and he has to eat, because he arose so early in the morning, and that takes him, all told, possibly an hour and a half, and then he has to prepare in the evening to come to work again, and it is impossible for him to get more than 5½ hours sleep in the day and almost impossible to get any at night, because he has to ride—on account of the night-car condition, he might not get home until half-past 1 and still might have to leave home at half past 3 to get to the barn again.

Mr. WARREN. You do not have any law limiting the hours except that 8-hour law?

Mr. REA. No; that is the only one we have. Now, those runs that I spoke of that had around 14 hours for completion; just as an example, here is a man who goes to work at 5.10 in the morning; he works until 8.59; returns at 11.31 a. m.; is off at 2.01 p. m.; goes on duty at 3.19 p. m.; off at 7.18 p. m. It requires him 14 hours and 8 minutes, and he is practically on duty from 5.10 a. m., until 7.18 p. m. This schedule contains a great number of such runs as that.

Are you ready for the next schedule, Mr. Lauck?

Mr. LAUCK. I think you just started on the Superior Avenue run.

Mr. REA. This is the Superior Avenue schedule in effect October 1, 1918, schedule No. 878. Do you want me to read the following schedules the same as I did the St. Clair, showing the number of men that required a certain number of hours, or just the average?

Mr. LAUCK. I believe it would be better to give the averages, unless there are exceptional conditions on the line that you want to point out, or unless someone wishes to bring out some point.

Commissioner SWEET. If those already given are typical of the entire situation, do you think it is necessary to put in all of them?

Mr. LAUCK. We would just like to put in the averages, which will take but a short time.

Commissioner SWEET. We want to shorten it if we can.

Mr. REA. On this schedule the average time of completion per man is 13 hours 13 minutes; the average pay time per man is 8 hours 54 minutes; the average lost time per man is 4 hours 19 minutes.

The Superior schedule—

Mr. LAUCK. That was in 1914?

Mr. REA. In 1913 and what we exhibited in 1914; it was in effect in 1914.

Mr. LAUCK. Can you give the same thing for the year 1919?

Mr. REA. Superior schedule 1622 in effect July 1, 1919: The average time of completion on this schedule was 12 hours 57 minutes per man; the average time paid was 8 hours 28 minutes per man; the average time lost 4 hours 29 minutes per man.

Mr. LAUCK. Just go ahead with the Euclid and Woodland lines, giving the averages.

Mr. REA. Euclid Avenue, schedule No. 832, in effect September 16, 1913: The average time of completion per man is 13 hours 15 minutes; the average time paid was 9 hours 39 minutes per man; the average time lost 3 hours 36 minutes per man.

Under the present schedule, Euclid Avenue schedule 1545, in effect December 2, 1918, and still in operation: The average time of completion per man is 13 hours 2 minutes; the average time paid per man 9 hours 48 minutes; the average time lost per man 3 hours 14 minutes.

Woodland Avenue, schedule No. 746, in effect October 31, 1913: Average time for completion per man was 13 hours and 1 minute; average time paid per man, 8 hours and 50 minutes; average time lost per man, 4 hours and 28 minutes.

Woodland Avenue, schedule No. 1502, in effect November 1, 1918, and in operation at this time: Average time of completion per man, 12 hours and 58 minutes; average time paid per man, 8 hours and 14 minutes; average time lost per man, 4 hours and 44 minutes.

Broadway, schedule No. 859, in effect December 1, 1913: Average time of completion per man, 13 hours and 36 minutes; average time paid per man, 9 hours and 1 minute; average time lost per man, 4 hours and 35 minutes.

Broadway, schedule No. 1499, in effect October 16, 1918, and in operation at the present time: Average time of completion per man was 12 hours and 47 minutes; average time paid, 9 hours and 17 minutes per man; average time lost per man, 3 hours and 30 minutes.

Bridge Avenue, schedule No. 854, in effect October 1, 1913: Average time of completion per man, 13 hours and 25 minutes; average time paid per man, 9 hours and 17 minutes; average time lost per man, 4 hours and 8 minutes.

Bridge Avenue, schedule 1634, in effect August 4, 1919, and in effect at the present time: Average time of completion, 13 hours and 1 minute; average time paid per man, 9 hours and 12 minutes; average time lost per man, 3 hours and 49 minutes.

Detroit Avenue, schedule 793, in effect April 14, 1913: Average time for completion per man, 13 hours and 17 minutes; average time paid per man, 9 hours and 22 minutes; average time lost per man, 3 hours and 55 minutes.

Detroit Avenue, schedule No. 1505, in effect November 1, 1918, and in operation at the present time: Average time of completion per man, 12 hours and 50 minutes; average time paid, 9 hours and 12 minutes; average time lost per man, 3 hours and 38 minutes.

Mr. LAUCK. How many days, on an average, does your experience indicate they worked during the year?

Mr. REA. Motormen and conductors?

Mr. LAUCK. Yes.

Mr. REA. About 325.

Mr. LAUCK. You have not a combined average for all lines, all divisions, have you, Mr. Rea?

Mr. REA. I have not. These are typical schedules that are in operation on all lines in the city of Cleveland.

Mr. LAUCK. That completes what you have to submit to the commission, does it?

Mr. REA. Yes; that completes what I have to submit. I have the schedules from every line in the city which will show the same condition as I have read on these schedules.

Mr. LAUCK. If the commission does not wish to ask any questions, that is all.

Commissioner MAHON. Have you any short runs that are not scheduled?

Mr. REA. We have a number of five-hour runs, tripper runs, that are worked by extra men.

We have a guaranty under the agreement with the railway company that every man shall be paid five hours per day. Those men are compelled to work a. m. and p. m. trippers, in most cases, some few schedules are just p. m.

A man that receives the 5-hour minimum, Mr. Mahon, that is required to go to work around 6 o'clock in the morning—5.30 to 6 o'clock in the morning—completes his duties around 6.30 in the evening.

Commissioner MAHON. Is that a condition under the Cleveland schedule at the present time

Mr. REA. Yes, sir.

Commissioner MAHON. To what extent does this condition exist that the men are only getting 5 hours' pay now?

Mr. REA. On the Superior Avenue schedule there are 22 men working for 5 hours' pay per day, and it required those 22 men 259 hours to complete their day's work, and they received compensation for 110 hours.

Commissioner MAHON. How many hours did you say?

Mr. REA. 259 hours.

Commissioner MAHON. In what period?

Mr. REA. In one day.

Commissioner MAHON. How many men was that?

Mr. REA. Twenty-two men.

Commissioner MAHON. Oh, yes; I see.

Mr. REA. In addition to working a. m. and p. m., if the schedule time is not 5 hours, they are subject to call at any time during the day to work out the 5 hours.

Commissioner MAHON. To what extent is that? Is there any more of that than you pointed out on the one line?

Mr. REA. Every schedule has similar conditions. Some of them not as bad as that one.

On Euclid Avenue we have two men who are working for 5 hours; one man 5 hours and 25 minutes; another man 7 hours; another man 7 hours and 5 minutes; two men 7 hours and 10 minutes.

Commissioner MAHON. The men are sacrificing this time in order to make this schedule condition at Cleveland a success, are they?

Mr. REA. Yes, sir.

Commissioner MAHON. I want the commission to pay particular attention to this condition at Cleveland, because it has been held up as one of the shining examples for the street railways to be guided by. One of the gentlemen yesterday, Mr. Beeler, in his testimony, pointed it out as one of the successful cities. Part of that success is due to the sacrifice that these men made who are working there to help it to success. Here are a number of men who get 5 hours' pay for their workday. Under our contract with the Cleveland company the lowest amount that a man can be paid is 5 hours' time, and advantage is taken of that.

Mr. REA. Woodland Avenue, schedule No. 1502, in effect November 1, 1918: There are 24 men on that schedule that receive only 5 hours' time; 2 men, 5 hours and 30 minutes; 4 men, 5 hours and 35 minutes.

Commissioner MEEKER. May I ask, is the showing of hours in Cleveland rather worse than in other cities? Will you put in evidence, Mr. Lauck, of hours in other cities for comparison?

Mr. LAUCK. We were depending upon Mr. Mahon's knowledge to explain to the commission whether or not these were typical in representative cities, or whether they were unusual. This is all the evidence we have at this time to submit. We could put in all the schedules if desirable. We thought Mr. Mahon could advise the commission whether these were representative and typical or not—in other words, cover your question.

Commissioner MEEKER. The point of my question, of course, is this: Is the service at Cleveland dependent upon making greater demands upon the men operating the cars than is the case in other cities that have not as good a record financially as Cleveland?

Mr. LAUCK. Mr. Rea would not be in a position to testify as to that. Mr. Mahon could probably answer that.

Commissioner MAHON. Mr. Rea is, of course, only familiar with Cleveland. He is the secretary of the Cleveland union.

Commissioner GADSDEN. These men who make only five hours are on the extra list, are they not?

Mr. REA. Yes.

Commissioner GADSDEN. How long does a man stay on the extra list in Cleveland before he gets a regular run?

Mr. REA. Prior to the war we had many lines in the city of Cleveland that had men on the extra list for a period of six years.

Mr. GADSDEN. Now I mean.

Mr. REA. At the present time, of course, we have not got back to really normal conditions yet.

Mr. GADSDEN. No.

Mr. REA. But I would be safe in saying that the average from now on will be from two to three years in the number of men that are employed in the city of Cleveland.

Commissioner GADSDEN. He gradually works himself up from the extra list and gets better assignments, does he not, so that he works out of that 5-hour class?

Mr. REA. Yes; he does.

Commissioner GADSDEN. How gradual is the improvement until he gets a regular run?

Mr. REA. He graduates into the 7-hour class.

Commissioner GADSDEN. Yes.

Mr. REA. It takes him about 16 or 17 hours to put in 7 hours.

Commissioner MAHON. Mr. Gadsden does not think that that is a condition that should prevail—that men should have to graduate from that condition?

Commissioner GADSDEN. I do not, but I did not want the commissioner to understand that these men were permanently working five hours. There is a gradual improvement in their condition.

Commissioner SWEET. What are the requirements of these extra men as to the time outside of that in which they are regularly employed?

Mr. REA. In Cleveland the extra men are first marked on these tripper runs. Then if there are any men available, extra men, over and above the tripper runs, and the regular man is off, they mark him for the regular route. Our experience has been, however, that with so many of these tripper runs on the schedule, and men only earning 5 hours a day for 4 or 5 days out of the week, they quit very rapidly on some of the larger lines, with the result that a great many men are compelled to still work on the extra list for the 5 hours for a number of weeks. We had a complaint at our last meeting of men saying that they had worked 6 days of the previous week 5 hours every day.

Commissioner SWEET. What control does the company have over these men during the other 19 hours of the day?

Mr. REA. The other 19 hours?

Commissioner SWEET. Yes.

Mr. REA. We have a stipulation and agreement that these 5-hour runs must be completed within 13 consecutive hours.

For example, if a man makes one a. m. tripper and it takes an hour, and he makes two p. m. trippers which require 2 hours, that would be 3 hours platform time; he then has 2 more hours that he owes the company, they claim; they claim that he is indebted to them 2 hours, and they can call him out at noon to make a shop trip, or they can hold him after he completes his run in the morning until he has worked his 5 hours' time during that day.

Commissioner SWEET. Is he required to be at the barns, or at any particular place?

Mr. REA. He is required to be there. The contract reads that he is subject to the call of the dispatcher.

Commissioner SWEET. Can he remain at his own home while not on duty?

Mr. REA. If he is not told by the dispatcher to stay there or to return, he can; yes. But they use these men for taking all crippled cars to the shops, carrying the magazines from the fare boxes from the cars into the office, and throwing the switches around barns, meeting cars; so that they see that practically all of these men work their 5 hours.

Commissioner SWEET. Yes; but I am talking about the other hours; whether they have control of their time at all, or whether it is practically all subject to call from the company.

Mr. REA. Yes. An extra man is subject to the call of the company at any time. They can send to his home at any time for him to return to work.

Commissioner MEEKER. You mean at any time within the 24 hours?

Mr. REA. Yes; at any time within the 24 hours. If he does not respond, he is discharged from the service.

Commissioner MEEKER. On the first offense?

Mr. REA. On the first offense. If a man refuses to work, he is discharged immediately from the service of the company.

The CHAIRMAN. Does it make a full day's wage for 5 hours' work?

Mr. REA. These men practically all are worked on a 55-cent per hour basis. Our rate is 55, 58, and 60 cents.

The CHAIRMAN. If they only work 5 hours, they would be paid—

Mr. REA. \$2.75. The man I just spoke of that worked that 6 days out of the week earned \$16.50.

Commissioner MAHON. Do you know whether the rules of the Cleveland company specify that a man can not engage in any other business or not?

Mr. REA. They are not allowed to engage in any other line of occupation except that of the street-car worker.

Commissioner SWEET. Is the motive of the men taking those jobs that they expect to learn the business and get better jobs after they have completed their education, so to speak? Is that the motive?

Mr. REA. Being a victim myself, I suppose that the majority of men enter the occupation the same as I did, not having any knowledge of the conditions that confronted me. I knew nothing of it until I was in the occupation.

Commissioner SWEET. You had the privilege of leaving it?

Mr. REA. Yes, sir.

Commissioner SWEET. Why didn't you do it, after you found you had been victimized?

Mr. REA. The conditions when I worked on the cars were not nearly as bad as what they are to-day in the city of Cleveland. We had no such things as these 5-hour trippers on the line that I worked on.

Commissioner SWEET. You do not answer my question. You say you were a victim. Do you mean by that that you did not know, before you went in, just exactly what you were going into?

Mr. REA. I did not; no, sir.

Commissioner SWEET. After you got in and found out what you had gone into, why didn't you quit?

Commissioner MAHON. He has explained that to you, that he did not have the conditions that now prevail.

Commissioner SWEET. I know, but he says he was a victim.

Commissioner MAHON. Yes.

Commissioner SWEET. The conditions were such that he did not like it, and he did not know himself before he went in just what the conditions were. That is what I understood him to say.

Commissioner MAHON. Yes.

Commissioner SWEET. My question is, after he did find out what the conditions were, why didn't he quit the business?

Commissioner MAHON. Probably because another job—

Commissioner SWEET. He is more capable of answering than you are, I think.

Mr. REA. I want to say this: I said that the conditions at that time were not nearly as bad as they are at the present time.

Commissioner SWEET. But you used the word "victim"?

Mr. REA. Like a great many of the men, I was in hopes that conditions would improve. I am not subject to return to the cars at the disposal of the men of my division. I am elected to office, but I would have to return under worse conditions now than when I left the employment several years ago.

Commissioner SWEET. Then you did not mean what I thought you did. I thought you meant you were a five-hour man when you first went with the company, and that you considered yourself victimized?

Mr. REA. We only had one tripper run on the schedule that I worked on.

Commissioner SWEET. What is the motive, then—will you please explain, for the benefit of the commission—for men to keep their jobs; these jobs in which they can earn only \$2.75 a day?

Mr. REA. I might say this, that there are a great many men who have been working on the cars in Cleveland—I did have that percentage some time ago—and 80 per cent of the men, I believe, had been there for a period of over 8 years. A man who has followed the occupation of a street-railway worker for a period of 8 or 10 or 15 years is not in physical condition to follow any other line of occupation where there is any physical strength required.

Commissioner SWEET. My understanding from what you previously said was that these 5-hour men ordinarily did not retain that 5-hour position permanently, but expected to get more hours, more work later on. Now, my question is: What is the motive that keeps a man there earning only \$2.75 a day? Is it the hope of getting longer hours and more pay later on, or what is the idea?

Mr. REA. I presume it is, but I might say that the turnover in our division, out of about 2,700 members, of which 2,400 are city men, our turnover is an average of something like 1,200 a year. Those are mostly extra men. New men come and work for a period of 2 or 3 or 4 or 5 or 6 months—less than a year—and leave the occupation. That can practically be verified by my reports to our international office.

Commissioner MAHON. The fact is that the men do not remain in it?

Mr. REA. They do not remain.

Commissioner MEEKER. However, that is not a high labor turnover as labor turnover runs in other industries. It runs well above 100 per cent at the present time, I should guess.

Mr. REA. I only gave the figures of the men who are members of our organization. They operate a car for 60 days in Cleveland before they become members of our organization. I should imagine that that is about 100 per cent too low, because I really honestly believe that there are more men that leave the service before 60 days than those who leave after they have been there 60 days.

Commissioner MEEKER. That is the usual experience in industry.

Mr. REA. I have not a copy of the report that was submitted by the superintendent of employment of the Cleveland Railway Co. last year, which would show the turnover of the men.

Commissioner MEEKER. I think that would be interesting, and if you can obtain it, I would ask for its submission for the record here.

Mr. REA. I might ask Mr. Lauck: Do you remember such a report as that being submitted to the National War Labor Board at the hearing on the conductorettes' case last year?

Mr. LAUCK. I do not recall that. There was a great deal of documentary evidence. We can have it looked up and transferred.

Commissioner SWEET. Are all the men on the Cleveland street railways members of your union?

Mr. REA. I think we have 16 men in Cleveland that are not members.

Commissioner MAHON. They do not become members until after 60 days?

Mr. REA. Yes.

Commissioner SWEET. Those who are not are, for the most part, men who have not been there 60 days?

Mr. REA. Those 16 men? No. I will just explain it to you. When we organized, the company entered into an agreement with us that they would recommend that all employees become members.

Commissioner SWEET. Yes.

Mr. REA. And those who entered the occupation in the future after the probationary period of 60 days must become members of the organization, with the result that I think the last figure was 16 old men who had not yet joined the organization.

Commissioner SWEET. That is what I supposed. Do you know how that is in Detroit?

Mr. REA. No. I could not answer for Detroit. Mr. Ferguson or Mr. Mahon probably could answer.

Commissioner MAHON. All motormen and conductors in Detroit are members after a period of 90 days. They have a probationary period there of 90 days, and if satisfactory to the company at the end of 90 days, they become members of the organization; that is, motormen and conductors.

Mr. REA. Our contract on working conditions provides that the run should be completed in 12 consecutive hours, with a leeway of half an hour to complete the schedule with the exception of swing-runs, which shall be completed in the shortest number of hours possible.

You will notice that in the majority of these runs advantage has been taken, as Mr. Ferguson said in Detroit, of that half-hour period, and also advantage has been taken—with the exception of swing-runs, which shall be completed in the shortest number of hours possible—in the greatest percentage of our runs, run a way over 12½ hours.

Commissioner MAHON. Mr. Rea, what is the fare rate in Cleveland? Is it universal 5-cent fare now?

Mr. REA. No, sir. The present rate under the Tayler ordinance is a 5-cent cash fare with a penny charge for a transfer, with no rebate; 11 tickets for 50 cents and a penny charge for transfer, with no rebate.

Commissioner MAHON. That is the present fare?

Mr. REA. That is the one that is in operation at the present time.

Commissioner GADSDEN. What was it in 1914, Mr. Rea?

Mr. REA. In 1914, it was 3 and 1.

Commissioner GADSDEN. 3 cents and 1 cent for a transfer?

Mr. REA. Yes; I beg your pardon. That is the way we have of speaking of it commonly in Cleveland—3 and 1—meaning 3 cents fare and 1 cent for a transfer.

Commissioner GADSDEN. Yes; I understand.

Commissioner MEEKER. With a rebate?

Mr. REA. Three-cent fare and a penny charge for a transfer.

Commissioner GADSDEN. So that it has gone up fully 2 cents?

Mr. REA. Yes.

Commissioner MEEKER. How about the rebate in 1914?

Mr. REA. A portion of the time they had a rebate. If you men have studied the Tayler ordinance, you know that the interest fund is the barometer which regulates the rate of fare that shall exist. If that interest fund goes beyond \$700,000, and the fare is 3 and 1, with no rebate, then the next lower rate of fare is 3 with a rebate.

Commissioner MAHON. A rebate of a penny for the transfer?

Mr. REA. Yes.

Commissioner GADSDEN. Do you know how the barometer stands to-day?

Mr. REA. No; I have not seen any official report lately. They did hold one back some time ago, and I don't know whether they are holding this one back for the same purpose or not.

Commissioner GADSDEN. When was the last change in rate? How long ago?

Mr. REA. It was supposed to go into effect July 1, and it did not go into effect, I believe, until the 6th—on Sunday. Mr. Stanley was away, and I believe it was on the 6th, or the following Sunday—anyhow after the 1st of July, that it went into effect.

Commissioner GADSDEN. What was the attitude of the Cleveland public, according to your observation, as to these successive increases? Did they take it good-naturedly, or was there friction on the part of the public growing out of these increases?

Mr. REA. With some classes, yes; because the penny charge for a transfer makes the man who toils pay a higher rate of fare—I mean the man who toils with his hands—pay a higher rate of fare than the man that toils with his brain, as a rule, because they have to transfer. They are the men who have to transfer, from the east to the west side; and the average business man, lawyer, and so forth, located in the downtown district, rides to the public square for a nickel. Those that have to go across the river, either east or west, must pay 6 cents.

Commissioner GADSDEN. Still there was less friction in Cleveland than in some other places you know arising out of the increase of fare; was there not?

Mr. REA. I believe that is true; yes.

Commissioner GADSDEN. Chicago, for instance?

Mr. REA. Yes.

Commissioner MAHON. There were no riots or anything like that in Cleveland?

Mr. REA. No.

I kind of thought that it was sort of brought about through education during the war. We were so used to raises and the high cost of living that the people had begun to take it as a sort of form.

Commissioner GADSDEN. People did not take it that way elsewhere. I am trying to get at why they should have taken it in Cleveland so philosophically, whereas in other places they had riots and protests of various kinds. What is your explanation of it?

Mr. REA. The only reason that I could give for that is due to the fact that the newspapers carried on a campaign for a short while, explaining to the people just exactly what the Tayler ordinance was, and that is that it was a service-at-cost plus 6 per cent.

I imagine the people have begun to understand the Tayler ordinance better than they did. I want to say now that I think there are other men in Cleveland who understand the Tayler ordinance better than they did at that time, because, as I said a while ago about the schedule conditions when I entered the occupation, and even when I left it, some few years ago, they cut down on the base schedule. What we mean by the base is the schedule that is in operation during the day, after the rush-hour period in the morning—between that and the rush-hour period in the evening, and then again after the rush hour in the evening. They cut down on the base schedule and added tripper service in the morning and evening, with the result that it destroyed what little schedule conditions we did enjoy in the city of Cleveland, and we had to operate under that for a period of two or three years with the actual time on these trippers 1 hour and 10 minutes; which you can see by these blue prints. Finally, we were able to force a 5-hour minimum for these men. We asked for 8 and received 5.

Commissioner GADSDEN. Does Local 268 think well of this Tayler ordinance? Do you men think this is a good solution of the street-railway problem in Cleveland?

Mr. REA. Well, I do not know what the spirit of the membership is on that, Mr. Gadsden. I know that at the time the conditions were destroyed they were very bitter against the ordinance at that time; and to what extent they have become reconciled I can not tell you, because conditions are not improving as rapidly as we expected they would. It seemed to me, just to be honest with you, as representing those men, that the opinion was that all the saving to be made in Cleveland should be made at the expense of the carmen in the way of schedule conditions.

Now, on some lines—the ones that I can speak of; the Superior Avenue—prior to that time, these men were making 8 trips for their 10-hour workday, or thereabouts, and after that they were compelled to make 9 trips for a less pay time than what they had originally only made 8 trips for.

Commissioner GADSDEN. But those schedules are not controlled by the ordinance; those schedules are controlled by your contract with the Cleveland company, are they not?

Mr. REA. These schedules are controlled by the supervision of the street-railway commissioner. He says what kind of service shall be operated on every line in the city of Cleveland. He hands down the headway to the Cleveland Railway Co. and allows so much time to make that round trip—an hour, or an hour and 10 minutes, or whatever it may be—and then they distribute the running time to different points and distribute the service in the schedule of runs as he has prescribed in his recommendation to them.

Commissioner MAHON. That comes from the commissioner of railways to the company?

Mr. REA. Yes.

The CHAIRMAN. Then the commissioner of railways is really responsible for the routing and the schedule of service in Cleveland, is he?

Mr. REA. He says he is responsible for the service that the people receive; but they have always been passing that buck across 268 all the time, about who really was responsible for the condition.

The CHAIRMAN. Since this plan was inaugurated, have you found a constant improvement in the kind and quality of men employed in the service?

Mr. REA. No; we always felt that we had just a little bit the best class of men in Cleveland on the cars that they had anyhow.

The CHAIRMAN. It could not be improved?

Mr. REA. No.

The CHAIRMAN. That is a good way to think. Have you found any difficulty in securing wage adjustments under this cost-of-service plan that you had before?

Mr. REA. Well, I can not speak to a very lengthy time on that, because we were organized in 1906, and that was the time that the Johnson and Stanley fight was on in the city of Cleveland, which had lasted then 18 years, and the final settlement was made in 1910. They had a strike in 1908 and did not return to work until 1909, so we did not have much of an opportunity for a demonstration from the company as to what they really would do, although they did increase our wages immediately after we were organized.

The CHAIRMAN. Under the present system, how do you get wage increases?

Mr. REA. Under the present system?

The CHAIRMAN. Yes.

Mr. REA. We apply to the street-railway company.

The CHAIRMAN. In this negotiation do you have anything at all to do with the railway commissioner of the city?

Mr. REA. At one time he sat in the hearing, and the last time, the last two hearings we held, he was not present.

The CHAIRMAN. Was he invited to be present?

Mr. REA. No, sir; not by the railway company, because the council and also the street-railway commissioners have always held that they had nothing to do with the rate of wage to be paid to the employees.

The CHAIRMAN. In these wage adjustments do you find that the representatives of the company are as active in opposing increases as they are where the company must assume the full responsibility of the increase?

Mr. REA. Yes; I believe they are, because we have not surpassed any of these cities yet that do not have the supervision over the companies that they have in Cleveland.

The CHAIRMAN. Do the men feel that it is easier to get increases or adjustments of schedules under the cost-of-service plan than without the cost-of-service plan?

Mr. REA. Well, I do not believe that it is; I do not think it is. I really think that it would be if everybody would take the spirit of the ordinance that is in existence and apply it according to its spirit; then it would be easy enough to adjust it.

The CHAIRMAN. Under your contract it does not make any difference what your wage may be, the fare has got to be adequate to take care of all the fixed charges and operating costs?

Mr. REA. Yes, sir.

The CHAIRMAN. And therefore, is there an obligation resting upon the management of the company to try to keep wages down?

Mr. REA. Yes; I think so.

The CHAIRMAN. You think there is?

Mr. REA. Yes; I think they felt that obligation when they accepted the Tayler ordinance. That is, I speak of the Tayler ordinance because that is the one in existence in Cleveland.

The CHAIRMAN. Have you found anywhere among your men a spirit like this: Well, the public has got to pay this charge anyway—our wage anyway—through higher rates, therefore let us go and get just as much as we can?

Mr. REA. No, sir.

The CHAIRMAN. You do not find that spirit?

Mr. REA. No, sir; we would not permit that to exist in our organization.

The CHAIRMAN. Has it not been debated at all among your men?

Mr. REA. Not that I know of.

The CHAIRMAN. Do you believe that this contract might tend to develop that sort of sentiment among the employees?

Mr. REA. Well, no; I do not think so.

The CHAIRMAN. You think that all the men want under any form of contract is a fair wage?

Mr. REA. That is all they want.

The CHAIRMAN. And fair working conditions?

Mr. REA. That is it.

The CHAIRMAN. Supposing that the radical element should get control of your men and they should set out to get wages of, let us say, \$1 an hour, which would result in perhaps increasing the fares to 8 or 9 cents; how would you control that situation under your Cleveland plan?

Mr. REA. Well, we have always held pretty good control of our membership in Cleveland, but have, I will say, a dissatisfied bunch of men there under the present schedule conditions.

The CHAIRMAN. Suppose that dissatisfied element should be in the majority and would start out, say, to get \$1 an hour at a minimum, we will say, of \$8 a day; what is there in the Cleveland plan that would prevent that sort of demand from being put over?

Mr. REA. Well, I think I see what your question is. Before the company could grant that, or before they will grant us any increase in wages, they go before the city council and ask them for an increased allowance for their operating expenses, in order to meet with the increased cost of wages. And they say to us, "We will grant this wage after we have come to an agreement on a specified rate, and we will grant these rates of wages to you men subject to the approval of the city council."

The CHAIRMAN. Then there is some sort of check upon the extreme action of the employees, is there?

Mr. REA. Absolutely. Anything that the council thinks too high they have the right to refuse to grant the allowance to the com-

pany for, and the company comes back to us and says, "We can not pay it because they will not give us the money."

The CHAIRMAN. Do you think such a check is necessary in the interest of the public?

Mr. REA. Do I think so?

The CHAIRMAN. Yes.

Mr. REA. No; I do not think so. Although it has worked out there, I suppose, very satisfactorily, only to this extent, that it compels us, when we are after more money, to go down and—what we call—battle with the city hall before we are able to get our increase.

The CHAIRMAN. Don't you believe, in the interest of the public as a whole, there ought to be some way to withstand unusual demand either by capital or labor?

Mr. REA. I think you are right; there should be some regulation in there—some stipulation on the rate of interest, and so forth.

The CHAIRMAN. As well as the rate of pay?

Mr. REA. No; I do not think so, because you can not tell what the conditions are going to be from day to day in labor conditions. If we knew, then that would be all right. If they would say to us, "It is not going to cost you only a dollar a day to live from now on," during the rest of their life, naturally, we could set a rate of wages for the rest of our lives, I suppose; but not under these conditions, as changeable as they have been for the past two years.

The CHAIRMAN. Have you not found that the authorities in Cleveland have been fairly disposed to treat the laboring men well?

Mr. REA. Yes; they have treated us fair in some respects, but, on the other hand, we feel that we have been more than fair with them.

The CHAIRMAN. Well, there ought to be perfect cordiality of feeling between the employees and the city, ought there not?

Mr. REA. There is, absolutely.

The CHAIRMAN. As well as with the employer?

Mr. REA. There is between the employing company and our organization and also between the street-railway commissioner's office and our organization perfect harmony.

The CHAIRMAN. Looking at the system as a whole, does labor prefer the cost of service to the plan that formerly existed in Cleveland and which so generally prevails in other cities?

Mr. REA. Well, now, as I said before, our experience there was very short under private ownership—that is, under operation of the private company—and I could not speak for other cities. No doubt Mr. Mahon will be able to answer that for you, because he has dealt with nearly every company in the country and he knows what their attitude is. But we have gotten along very nicely at all times with our company on almost all subjects, providing, however, that we would make all the sacrifices and permit their suggestions to go through; we had perfect peace and harmony at all times.

The CHAIRMAN. Under the present system any sacrifice that you might make—does it or does it not inure to the benefit of the company?

Mr. REA. Yes.

The CHAIRMAN. As I understand it, the company gets 6 per cent upon its investment.

Mr. REA. No financial benefit.

The CHAIRMAN. No financial benefit to the company?

Mr. REA. No financial benefit to the company, because that fund is divided—

The CHAIRMAN. Who does benefit by any sacrifices made by labor?

Mr. REA. The traveling public.

The CHAIRMAN. The traveling public?

Mr. REA. Yes, sir.

The CHAIRMAN. So you have gotten away from the conflict that might exist between labor and capital, so now it is really an issue between labor and the public?

Mr. REA. No; I do not think so. I think we still have a conflict with capital and—

The CHAIRMAN. Well, how?

Mr. REA. Well, because, I might say, no doubt the men who operate the car lines in Cleveland are interested in other lines in other parts of the country, and they do not want to see a rate of wages established in our city that is beyond that in other cities, for the reaction it would have against those other companies.

Commissioner SWEET. Is that the fact—that they are interested in other companies? Do you know it to be a fact?

Mr. REA. They are interested in New York State railways, as I understand, and always have been—the Stanley and Andrews interests. I do not know to what extent; I would not like to make that as a statement, because I do not know to what extent they are interested.

The CHAIRMAN. How are the employees and the management getting along now?

Mr. REA. Well, there is perfect harmony existing between the management and employees, as much as could be expected under such schedule of conditions as I have stated to you this morning. But you made a statement about the conflict between capital and labor—that it had been set aside. Now, as I stated before, that has not, and then, on the other hand, they have added to that a third party—in fact, you might say a fourth party—in our operation, although that is being eliminated to a certain extent. We have, as I said, to appear at the city council for that allowance, and we are requested as officers of the organization, which Mr. Mahon knows, to appear before the city council to explain to them the living conditions of our men; and then, on the other hand, we have the traveling public, who naturally want to see the lowest rate of fare in existence that is possible.

The CHAIRMAN. Now, in case of an issue between the employees for an increased wage and improved working conditions, do you believe you are getting fairer treatment from the employer than you are from the general public?

Mr. REA. Now, you are getting into municipal ownership, and I am not enough of a student of that, I believe, to answer that question, because that is what that would finally result in when you are dealing with the traveling public.

The CHAIRMAN. Well, not necessarily. Under your Cleveland plan, you say that the traveling public, represented by the officials in Cleveland, have a sort of a veto power upon operating costs so, as a matter of fact, when you are asking for an increased wage the issue is between yourself and the traveling public, is it not?

Mr. REA. Yes.

The CHAIRMAN. Now, then, that being so, are you going to receive better treatment from the public than you are from the industry?

Mr. REA. Well, we must not lose sight of the fact that they have not anything to say about what the conditions shall be. That is still left to the employing company. We deal directly with our company, the same as Mr. Ferguson deals with the Detroit United. We have to make all our adjustments right in their office; especially on grievances and discharge cases, of which we have hundreds and hundreds every year. That is handled absolutely by the managers of the Cleveland Railway Co. and no outside party has anything to say about that.

Commissioner MEEKER. How about your schedule of runs?

Mr. REA. Nothing to say, only the company.

The CHAIRMAN. But upon the big issue which involves an increased fare to the public, are you going to receive better treatment from the public than you will from the corporations?

Mr. REA. Well, I do not know that we would. I could not say that. I would not like to say that, because I have never had that experience. My experience has been confined to Cleveland.

Commissioner MEEKER. I would like to ask further about the schedule of runs. I understood you to say that the commissioner of street railways of Cleveland issues the schedule of runs. That surely is a condition of labor. Now, has he absolute control there or is it the company that controls?

Mr. REA. I will answer that in a lengthy answer, if you do not mind.

Commissioner MEEKER. I would like to have it explained.

Mr. REA. The street-railway commissioner keeps in his office a number of men that they term "checkers," and every so often he sends those men out on different lines to check up the travel. Then they bring in their report, and they determine the service that shall be granted to that particular line by the number of passengers that they haul. If they want to change the service—just for an example, you might take Superior Avenue: If they had a five-minute-base table and they found that the cars were not sufficient to carry the people and they wanted to increase it to a four-minute-base table and put on another car there, they would submit that to the railway company and tell them they had checked up the Superior Avenue schedule and found that the service is insufficient, "and we request you to place in operation a four-minute headway from such and such a hour until such and such an hour;" and that is all they do. Then the company distributes that out over the blue print and the men have to work accordingly.

Commissioner MEEKER. But you hold the company responsible for these tripper cars and the unsatisfactory hours or distribution of hours worked by the extra men?

Mr. REA. Well, we think, due to the fact we are compelled to deal directly with the company, there is no one else we can hold responsible except the company in placing them on the schedule, although they say to us, "This is forced upon us by the street-railway commissioner." The old term they have used for a number of years is, "They send us down the goods for a pair of pants and expect us to make a suit of clothes out of it."

Commissioner MEEKER. That would bear upon the question asked by Chairman Elmquist as to the public versus a private corporation in dealing with the men. I think I brought out the fact that I wanted to bring out. That is all.

Commissioner MAHON. You have the same contract with that company as prevails throughout the association, do you not— providing arbitration and all other means of settling disputes?

Mr. REA. Yes, sir; practically the same contract exists everywhere.

Commissioner MAHON. It is the association contract.

Mr. REA. Yes. All matters that can not be mutually adjusted between the company and the association are to be submitted at the request of either party to a board of arbitration of three men.

Commissioner MAHON. Has there been a wage arbitration in Cleveland since the Tayler plan?

Mr. REA. In 1910. The rate of wages at that time was 26 cents maximum.

Commissioner MAHON. It was submitted to arbitration and determined by arbitration since you have been under the Tayler plan?

Mr. REA. Yes. Last year it was submitted to the National War Labor Board.

Mr. WARREN. You had a recent wage increase, did you not, Mr. Rea?

Mr. REA. Yes, sir; in July.

Mr. WARREN. And a strike in connection with that?

Mr. REA. Yes.

Mr. WARREN. What was the cause of that, exactly? What led up to that strike? Did the Tayler ordinance have anything to do with that one way or the other?

Mr. REA. Well, we entered into negotiations with the company and asked them for a 12-cent increase which would make it 55, 58, and 60 cents, and the company then sent a communication to the city council asking for the allowance necessary to pay that increase. There was some delay in the matter and finally the city council acted favorably upon it. But in conjunction with asking for the increase in operating allowance sufficient to cover our increase in wages, they had asked for some other things for the company. One of them was that the rate of interest to the stockholders be increased to 7 per cent from 6 per cent. And the city council did not grant that, and one or two other things, with the result that the company would not put into effect the rate of wages and our organization went on strike. And finally the council and the city railway company, through the street-railway commissioner, made an adjustment of the differences between those two parties, and after they made their adjustment, we adjusted our grievance and we returned to work.

The CHAIRMAN. What was that adjustment?

Mr. REA. Well, they agreed to submit the matter of increased rate of interest to a board of arbitrators and are now arbitrating that matter, or they were when I left Cleveland. There were some other things pertaining to increased allowances for maintenance, and so forth, but that was all satisfactorily adjusted between the company and the city council. The only thing that was left in abeyance was the rate of interest.

Commissioner MAHON. There was no dispute between the city and your organization, or the company and your organization about your rate of wages?

Mr. REA. No, sir.

Commissioner MAHON. It was all over the interest and proper allowances that the company wanted?

Mr. REA. That is it exactly.

Mr. WARREN. Both the city and company were satisfied with the schedule that you asked for—the 60 cents?

Mr. REA. Yes; both parties agreed we were entitled to what we were asking for. Even the mayor of the city announced on the floor of the council chamber that we were entitled to every cent that we were asking for, and so did a number of councilmen prior to the time of acting favorably upon it.

Mr. WARREN. Who increased that allowance, the council or——

Mr. REA. The council.

Mr. WARREN. So it has to go to the council?

Mr. REA. Yes.

Mr. WARREN. Has there been any increase in the fare rate since that adjustment of wages?

Mr. REA. No, sir.

Mr. WARREN. It is still just the same, 5 cents, 11 tickets for half a dollar, and the 1 cent for transfer?

Mr. REA. With no rebate.

Mr. WARREN. That is just what it was before?

Mr. REA. No; the rate of fare before was a straight 5 cents, a penny charge for transfer with no rebate.

Mr. WARREN. Before this adjustment was made?

Mr. REA. Yes. The only change that was made was 11 tickets for 50 cents, which makes it for the persons using tickets a trifle less than a 5-cent fare, but still they have to pay a penny charge for transfer without rebate.

Mr. WARREN. You do not know how they are getting along under that rate?

Mr. REA. I have not seen any report lately. I do not think they have submitted one.

(Witness excused.)

Mr. LAUCK. Mr. Chairman, we would like to call Mr. Arthur Sturgis as our next witness.

STATEMENT OF MR. ARTHUR STURGIS.

Mr. LAUCK. Will you please state your profession or business at this time?

Mr. STURGIS. I am an electrical engineer.

Mr. LAUCK. And your address, please?

Mr. STURGIS. My office address is 40 Central Street, Boston.

Mr. LAUCK. What has been your educational training for that profession?

Mr. STURGIS. I was graduated from the engineering department of Harvard University in 1900 and went at once to Elmira in the pits and in the shops. I was also used as an extra conductor and motor-man and I was there about two years, and went to the Bay State Street Railway in the construction department on power stations. I

was there four years. I was in charge of the drafting room and the electrical engineering. Then I left them, and since that time I have been in the engineering business. For the first several years I was chiefly engaged in preparing the data for presentation before the Public Service Commission of Massachusetts and the legislature, and in about 1914 I began to spend a great deal of my time in preparing statistics for street-railway arbitration.

I was in charge of the statistical matter on the Bay State arbitration, on the Rhode Island Co., Providence, R. I.; Holyoke Street Railway Co., Middlesex & Boston, Boston & Worcester, Danbury & Bethel, and prepared a great deal of data for the street-railway men for their use in conferences.

Mr. LAUCK. After that time you became connected with the War Labor Board, did you not?

Mr. STURGIS. Yes.

Mr. LAUCK. And you there were an administrative examiner charged with the interpretation and application of the awards of the board to actual working conditions, were you not?

Mr. STURGIS. On street railways; yes, sir.

Mr. LAUCK. Then recently you were appointed by Mr. Taft as an arbitrator in the Trenton case, were you not?

Mr. STURGIS. Yes; Trenton, N. J. There were two cases there.

Mr. LAUCK. You have prepared an exhibit for this case. Will you state to the commission how long you have spent on it—the time and effort?

Mr. STURGIS. I started about the middle of August—I think it was August 14, and I have been working quite a number of hours a day. We had several men on it with me. Mr. Rice prepared a great many charts to be presented in connection with this exhibit which you have before you.

Mr. LAUCK. You had other clerical help, did you not?

Mr. STURGIS. A great deal; yes.

Mr. LAUCK. Will you please read the title of the exhibit?

Mr. STURGIS (reading). "Analysis of electric-railway operating costs and the costs of living as related to wages of conductors, motor-men, and other trainmen."

Mr. LAUCK. I think you had better state also the source of your information and the data from which it was prepared.

Mr. STURGIS. The sources of part 1 are the United States Census figures for the census years 1902-1907 and 1912, and the advance reports of that bureau for the year 1917. We have those figures here if you want us to put them in.

For the year 1918, we took the estimates of Mr. Welsh of the American Electric Railway Association, but as he gave no estimate of wages for trainmen for 1918, I estimated that at the same percentage of the total cost of conducting operations as took place in the year 1917, which was 75 per cent; that is essentially the same figure that it was in 1912 when it was 75.9 per cent.

Then to supplement these we have prepared some 200 charts of individual roads, 35 individual roads, taking them mostly from the Interstate Commerce Commission reports. We selected all roads reporting to the Interstate Commerce Commission of over 150 miles of road. And as the list thus obtained was predominantly interurban, we added about 8 of the smaller urban properties to the list.

We also added about 8 or 10 roads from New York State when the reports of the commission were such that the data we wanted were available, and we added the Philadelphia Rapid Transit and the Capital Traction Co. of Washington to the list, which gave 35 roads in support of these census figures.

Mr. LAUCK. Mr. Sturgis, your idea there was, was it not, that in the census the roads all being considered as one system, you would test your results by individual cases?

Mr. STURGIS. Yes. Well, it was, in effect. It was to see if the census figures could be relied upon. And we made a composite chart of these 35 roads and found that the census figures checked very closely indeed. The mileage of the 35 roads was a trifle over 7,000 miles, which is about one-fourth of the mileage of road in the country.

Commissioner GADSDEN. How much of that mileage is interurban?

Mr. STURGIS. I could not say.

Commissioner GADSDEN. It is rather important to know, is it not?

Mr. STURGIS. Well, a great deal of it was neither interurban nor urban. Mileage like the Bay State Street Railway which is—well, of course, it is interurban in the sense that it is between cities, but it is more of a city road operating in the country.

Commissioner GADSDEN. All of these roads, according to the Interstate Commerce Commission, or practically all of them, are interurban roads?

Mr. STURGIS. The Detroit United reports and the—here is the list, Mr. Commissioner.

Commissioner GADSDEN. That would be better. Just see what the list is. It would answer my question to say what companies were included.

Mr. STURGIS. The Bay State Street Railway, The Berkshire Street Railway Co., Capital Traction Co., Chattanooga Railway & Light Co., Cleveland Southwestern & Columbus Railway, Cumberland County Power & Light Co., Detroit United Railway, Duluth Street Railway, Fort Dodge, Des Moines & Southern Railroad, Fort Wayne & Northern Indiana Traction Co., International Railway, Kansas City (Metropolitan) Street Railway, Lewiston, Augusta & Waterville Railway, Michigan Railway Co., Northern Ohio Traction & Light Co., Ohio Electric Railway, Oklahoma Railway, Oregon Electric Railway, Portland Railway, Light & Power Co., The Rhode Island Co., St. Louis, Springfield & Peoria Railroad, Spokane & Inland Empire Railroad, Springfield Street Railway, Terre Haute, Indianapolis & Eastern Traction Co., United Traction Co. of Indiana, Worcester Consolidated Street Railway, Washington Railway & Electric Co., Binghamton Railway, Brooklyn Rapid Transit, Elmira Water, Light & Railroad Co., New York State Railways, Orange County Traction Co., Philadelphia Rapid Transit, Poughkeepsie City & Wappinger Falls Electric Railway.

I can give you the mileages, if you like.

Commissioner GADSDEN. That is not necessary. That gives me just what I want. I think that is a fairly representative group.

Mr. LAUCK. There is one question there. These companies you got from the Interstate Commerce Commission's returns and they include urban operation along with the interurban, do they not?

Mr. STURGIS. Yes.

Mr. LAUCK. But it was a composite result, not an interurban result?

Mr. STURGIS. Both together.

Mr. LAUCK. The Bay State were all—urban and interurban together, the Detroit Electric, and so on. Isn't that correct?

Mr. STURGIS. Yes; for the Detroit Electric. The Bay State there is no way of separating, but in the Detroit Electric system there are several companies which make separate reports, and we took the report of the Detroit Electric proper, which is mostly city.

Mr. LAUCK. That is what I want to get at.

Mr. STURGIS. And does not include the rapid-railroad system of the Toledo Short Line or the Chicago-Jackson road, and it does not include the Canadian roads.

Mr. LAUCK. In other words, you aimed to get urban companies, but where you could not get urban companies you have a composite of urban and interurban, have you not?

Mr. STURGIS. I tried, as nearly as I could, to get an even number of each; and that is why we took about eight of the urban roads that were under 150 miles, in order to even up the numbers of companies.

Mr. LAUCK. I think if you will start at page 2 and make an exposition of your study and its results it would be the quickest way to get the data before the commission, passing it briefly and making an exposition as you go along.

Mr. STURGIS. The first comparison that I made was the relationship between the wages of trainmen and the total salaries and wages paid by the company.

The classification of trainmen is almost entirely motormen and conductors. It also includes, where they have them, guards and other men of that description.

There is a difference of about 3 per cent between the trainmen and motormen and conductors; that is to say, the classification of trainmen is about 3 per cent more than the motormen and conductors.

The first chart, the long curve, is the total salaries and wages from 1902 to 1918. Under that the two curves that are together are the curves of wages of trainmen and wages and salaries of other employees.

The bent curve that is above that is the ratio between the wages of trainmen and the total salaries and wages.

You will note that the wages of trainmen in proportion to the total salaries and wages falls materially from 1902. The biggest part of the fall comes between 1902 and 1907.

From 1912 until 1917 there is a very slight rise, and from 1917 to 1918 it is a standstill at 4.91 per cent.

If it were thought desirable to restore the ratio that existed in 1902 it could be done by increasing the 1918 wages of trainmen by 19.6 per cent. In other words, if the 1918 wages of the trainmen were increased by 18.6 per cent, the ratio that would then exist between the two items would be the same that existed in 1902.

Commissioner MEEKER. Is that fall in the ratio due to a fall in the ratio in the numbers of motormen and conductors as compared with other employees; or is it both a fall in numbers and relative—I do not like to use the term "decrease," but—

Mr. STURGIS. I do not know about the actual average wage, but I do know that the numbers fall. As far as the groups that are

reported are concerned, the numbers fall. I will take that up next, showing the ratio between the different numbers in the groups.

The CHAIRMAN. Have the wages in the other classes of service increased more rapidly than those of trainmen?

Mr. STURGIS. The aggregate have, and so far as I have it, the individual wages have; yes. I mean by that that the aggregate wages paid to the other employees have increased more than the aggregate wages of trainmen. Partly, as I said, because the numbers of the other classes have increased more, but as far as I have it, as far as the census figures can show it to me, the individual wages of the other classes have also increased.

Commissioner MEEKER. How about the salaried employees? They are included in the total salary and wages group?

Mr. STURGIS. Salaried employees are included in there; yes.

Commissioner MEEKER. Have their salaries increased proportionately or more rapidly than the wages of the trainmen?

Mr. STURGIS. The salaries of managers and superintendents have increased about the same per cent—a trifle more—they have increased 2 per cent more, but they received their increase earlier than the motormen and conductors received their increase.

Commissioner MEEKER. You will probably bring out these points as you go along with the exposition?

Mr. STURGIS. Yes.

Mr. LAUCK. There is one point right there, Mr. Sturgis, that you had better explain in passing. He said that if it were thought desirable to restore the old ratio conditions. You did not mean to state that you consider it desirable or urge that?

Mr. STURGIS. No.

Mr. LAUCK. You are just making an interesting comparison there, as I take it.

Mr. STURGIS. Yes; that if the present wages were increased 18 per cent, then the old ratio would be restored.

Mr. WARREN. This chart is based solely upon the census, is it not?

Mr. STURGIS. It is based solely on the census with the exception of the year 1918, which is the estimate that Mr. Welsh introduced, with the exception of my estimate for wages of trainmen.

The next chart, following page 5, shows the cost per car-mile of trainmen's wages, and total salaries and wages. the ratio curve, of course, being the same.

Mr. LAUCK. This cost is in cents per revenue car-mile, is it not?

Mr. STURGIS. Yes.

Mr. LAUCK. That is the upward curve?

Mr. STURGIS. Yes.

The CHAIRMAN. Will you describe how you reached those figures or does your exhibit show that?

Mr. STURGIS. On page 6 it gives the full data, Mr. Chairman.

The CHAIRMAN. Very well. Proceed.

Mr. STURGIS. The first column is the year, the second column is the revenue car-miles in millions, taken direct from the census, with the exception of the year 1918; the next column is the total salaries and wages, and the next column in the division of total salaries and wages by the revenue car-miles, and down below is the same for the motormen's and conductors' wages.

Mr. LAUCK. Your conclusion there is that total salaries and wages per car-mile have increased faster than motormen's and conductors' per car-mile; is it not?

Mr. STURGIS. Yes. They have increased from 7.8 cents to 15.3, or 96 per cent, while the wages of trainmen in the aggregate have increased only 74 per cent; that is, the trainmen by their increases have not absorbed so much of the increased cost per car-mile as have other employees.

I want to point out that the two curves that I have shown—one is total salaries and wages and the other one is the wages of trainmen—of course, the total salaries and wages includes the wages of the trainmen. In other words, if I had segregated it and plotted the wages of trainmen against other employees, there would have been a trifle greater fall in the ratio.

The next group I will not say very much about. It shows the same relation per mile of track—Chart A-2.

Mr. LAUCK. It shows practically the same thing?

Mr. STURGIS. Yes.

The next chart, following page 9, is A-3, and shows the costs of the two items of wages per revenue passenger.

Mr. LAUCK. Is not that the best standard of ultimate-cost unit, you might say?

Mr. STURGIS. It is a very good standard. I do not know that it is any better than the car-mile or the car-hour comparison, but the cost per revenue passenger is very good, especially when you are considering fares.

Mr. LAUCK. When we are speaking of efficiency, the car-mile might be better, but when you are comparing with a certain rate of fare, you get your costs in terms of that fare, do you not?

Mr. STURGIS. It is more easily understood; yes.

From this curve it is seen that the wages of trainmen per revenue passenger increased exactly .37 cent, which is a trifle over one-third of a cent per revenue passenger, due to the increase in the wages of trainmen.

The CHAIRMAN. Why have you separated your exhibits into the wages of trainmen and all other wages?

Mr. STURGIS. I did not quite get your question, Mr. Chairman.

The CHAIRMAN. You have separated the salaries and wages of trainmen from the salaries of all other employees?

Mr. STURGIS. Yes.

The CHAIRMAN. What is the significance of that?

Mr. STURGIS. I wanted to show that the trainmen were not getting as much in the aggregate as the other employees.

Mr. LAUCK. I might explain that the organization is chiefly composed of conductors and motormen, Mr. Chairman, usually designated trainmen; and Mr. Sturgis is mainly concerned with making an exposition for them.

Mr. WARREN. What did you say about 37 per cent a moment ago?

Mr. STURGIS. I said .37 of a cent.

Mr. WARREN. Oh, .37 of a cent?

Mr. STURGIS. Yes; per revenue passenger. That is the increase in trainmen's wages, according to the census figures.

Mr. LAUCK. What was it for total salaries and wages?

Mr. STURGIS. I think it was nearly a cent.

Mr. LAUCK. A little less than a cent, was it not? It is on page 11.

Mr. STURGIS. It was .95 of a cent. It increased from 1.87 to 2.82.

Mr. LAUCK. In other words, the total labor cost of operation including salaried officials increased .95 of a cent per revenue passenger, of which .37 of a cent was attributable to motormen and conductors or to trainmen?

Mr. STURGIS. Yes.

The CHAIRMAN. How late does this exhibit run?

Mr. STURGIS. To December 31, 1918.

The CHAIRMAN. So that your figures do not include any of the increases that have been allowed during the year 1919?

Mr. STURGIS. That is true. It does include, however, most of the War Labor Board awards.

The CHAIRMAN. In 1918?

Mr. STURGIS. Yes. And most of them were in 1918.

The CHAIRMAN. Are many of the wages paid throughout the country based upon the orders of the National War Labor Board?

Mr. STURGIS. I think so, yes; that is to say, the National War Labor Board had an effect even outside of the direct awards that were made by that board. For instance, in this city, here in Washington, they raised their rates up to the National War Labor Board scale before there was any award here.

The CHAIRMAN. You say that in 1918 the total is a little over—well, about 2.9, is it not?

Mr. STURGIS. Per what? Per revenue passenger?

The CHAIRMAN. Per revenue passenger.

Mr. STURGIS. 2.82.

The CHAIRMAN. 2.82?

Mr. STURGIS. Yes.

The CHAIRMAN. Would the increases which have been allowed during the present year increase that figure?

Mr. STURGIS. They would increase it.

The CHAIRMAN. To how much?

Mr. STURGIS. I can not say.

The CHAIRMAN. You are not able to approximate that?

Mr. STURGIS. No. I know of some increases that have been made, but all I know of are very few. There are about 1,000 roads in the country, I think.

The CHAIRMAN. Have there been increases large enough to substantially influence that figure?

Mr. STURGIS. They would, if all the roads in the country had received those same increases; yes. The increases I know of have been large, but how much that would increase the average of the entire country I do not know.

Mr. WARREN. They have been on large roads, too, have they not, generally speaking, Mr. Sturgis—the increases?

Mr. STURGIS. Generally speaking, the increases that I know of have all been on large roads.

Mr. WARREN. They have been large increases on large roads?

Mr. STURGIS. Yes. In Philadelphia—I was told, but I am not sure—I was told that they are increased from 48 to 54 cents.

Mr. WARREN. It was testified that it was 55 cents a day or two ago, I believe.

Mr. OGBURN. Fifty-eight.

Mr. STURGIS. The Newark road was increased from 45 to 50, the Bay State Railway from 45 to 51, The Boston Elevated from 48 to 60, Chicago from 48 to 65, Detroit & Cleveland from 48 to 60.

Then there were some smaller Massachusetts roads that were increased from about 41 or 43—they were increased to from 54 to 57 cents.

Commissioner GADSDEN. Philadelphia was also increased, was it not?

Mr. STURGIS. I mentioned the Philadelphia increase, from 48 to 54; and there was a small road in Connecticut that was increased from 35 to 44; and that is all the increases that I know of.

Mr. LAUCK. In other words, out of the 1,000 roads, you have had about 20 roads increased, have you not—20 or 30?

Mr. STURGIS. I would not say that—but all I know about; yes.

Mr. LAUCK. As far as your knowledge goes, there have not been a very great many then, you might say?

Mr. STURGIS. I think there have been very few.

Mr. LAUCK. Then did not the War Labor Board, in making its increases subsequently—the awards that are now in effect; and as reflected in your figures, the only awards practically there were made were about 10 awards recently made in New York, where the increase was about 12 per cent, the basis of that award being that the cost of living had increased 12 per cent since July 1, 1918—and most of these awards, were based upon that base; and with the exception of Boston, Chicago, Cleveland, and Detroit, the increases, if any, as indicated by your statement, have been about 12 per cent?

Mr. STURGIS. Yes. That would add some to my list. I forgot those. That would add Pittsburgh and a small road outside of Cleveland and three roads in East St. Louis, and I think Portland, Oreg.; and I think that is all.

Mr. LAUCK. So you might say, so far as there have been increases on a comparatively small number of roads, that, as a rule, it would be about one-eighth increase in your labor costs and other costs as shown there for those roads; would it not?

Mr. WARREN. How much?

Mr. LAUCK. One-eighth, 12½ per cent or 12 per cent.

Mr. STURGIS. For those roads.

Mr. LAUCK. For those roads only; it would not affect your general figure hardly at all probably.

Commissioner GADSDEN. I think it would be interesting to the commission, however, to show what would be the effect provided the same rate of increase which has already been granted to these roads that you spoke of is applied to the industry, because that is one of the situations we have all got to face—whether these increases which have been allowed since the 1st of January, 1919, are to be confined to these specific properties or whether they indicate a general move throughout the entire industry. And therefore if you can reasonably conveniently do so, I would like to have you give us a rectifying constant that we could apply to that and see what would be the effect on those charts, provided this increase which has come about since the 1st of January, 1919, in these properties you have mentioned, should apply generally to the industry.

Mr. STURGIS. I do not see how that could be figured out. The question of hours comes into that, too. For instance, in Boston, at the same time that they receive their increase from 48 to 60 cents, their hours were reduced from about 9, where they used to be, to about 8. That reduction in hours itself was a saving to the company; the company saved $1\frac{1}{2}$ cents per hour per man by reducing the hours that way, according to the company's figures.

So the increase in wages per week to the men in Boston was about—well, between 11 and 12 per cent.

In Chicago——

Mr. WARREN. Between 11 and 12 cents?

Mr. STURGIS. Per cent.

Mr. WARREN. It went up from 48 to 60?

Mr. STURGIS. Yes.

Mr. WARREN. Less $1\frac{1}{2}$ cents which you say they saved?

Mr. STURGIS. I said the increase in wages per week to the men because of the fact that they went from a nine-hour day to an eight-hour day.

Mr. WARREN. Oh, you are speaking of the week?

Mr. STURGIS. Yes. The increase in wages per week to the men was between 11 and 12 per cent. There was a similar reduction of hours in Chicago, but I do not know whether that resulted in a saving to the company or not.

The CHAIRMAN. But the net result of the Boston increase on wages, was that a saving in actual output to the company?

Mr. STURGIS. No; not the net result; because at the same time that the reduction in hours came there was an increase in wages. If there had been no increase in wages there would have been a saving to the company of $1\frac{1}{2}$ cents per man per hour.

Mr. WARREN. By going to an eight-hour day?

Mr. STURGIS. Yes. In other words, the company could have afforded to pay the men which it used to pay 48 cents—it could have afforded to pay them $49\frac{1}{2}$ cents and reduced their hours, and come out at the same point financially.

Commissioner MEEKER. Do you mean to say that the company could have conducted the operation of the Boston lines with the same number of men on an eight-hour day that they formerly employed on a nine-hour day?

Mr. STURGIS. Yes; I do.

Commissioner MEEKER. They did actually do so?

Mr. STURGIS. Those schedules were worked out. The reason for that is this, if you are interested in it: That the company has in its employ a number of men they call extra men. These extra men receive, when they do any work, a guaranty of $6\frac{1}{2}$ hours a day. Under that eight-hour schedule, the company was able to utilize the services of these extra men and give them eight hours' actual work and pay them eight hours' pay, whereas before they gave them perhaps four hours' work, and gave them $6\frac{1}{2}$ hours' pay.

The CHAIRMAN. We stand adjourned until 2 o'clock.

{Whereupon, at 1 o'clock p. m., an adjournment was taken until 2 o'clock p. m.)

AFTERNOON SESSION.

STATEMENT OF MR. ARTHUR STURGIS—Continued.

Mr. LAUCK. I believe you were at page 12 when we adjourned for lunch.

Mr. STURGIS. Yes; I was just starting in on the next section of the matter—

Commissioner GADSDEN. Before you touch that, and to complete what you were saying, I have a memorandum here to ask you. Will you put in the record just what was the net result of the increase in Boston?

Mr. STURGIS. The net result to the men was an increase of between 11 and 12 per cent in their weekly wages. I do not know what the net results was to the company. They saved—

Commissioner GADSDEN. It was the result to the men which I directed my attention.

Mr. STURGIS. Yes. Well, that was the direct result of the trainmen. On the miscellaneous employees, the board of arbitration fixed 12½ per cent as a basic increase in the weekly wages, reducing at the same time their hours, but they departed from that 12½ per cent in several cases; in some cases they gave them only 3 or 4 per cent and in other cases higher, I think one went as high as 20 per cent. I think that was the highest.

Commissioner GADSDEN. Just one other matter. You referred to Philadelphia as 54 cents. Mr. Joyce on Monday testified that their wage scale is now 58 cents, separate trainmen, from 23 cents in 1910 to 58 cents in 1918.

Mr. STURGIS. Well, I stated that I was not sure what it was, but my information was 54 cents.

Commissioner GADSDEN. My recollection was it was 58, but I just wanted to get it correct.

Mr. LAUCK. That ought to be correct, because that would amount to about 5 per cent.

Commissioner GADSDEN. Yes; I just wanted to get the record correct.

Mr. STURGIS. I was careful not to give it as my own information. I was told 54 cents.

Commissioner GADSDEN. Yes; I just wanted to get the record correct.

Mr. STURGIS. The next section I have taken up is a comparison of the numbers of motormen and conductors compared with the numbers of total employees, and in this case I have not taken the numbers of trainmen but the numbers of motormen and conductors, because that is the way it is given in the census report.

The first comparison, Chart B, plots the numbers of motormen and conductors, the numbers of employees on salary, the number of employees exclusive of motormen and conductors and salaries, and the ratios of those three classes to the total number of employees.

You will note that the top curve of all shows that the ratio of the numbers of conductors and motormen to the total number of employees falls, whereas the other two ratio curves increase from 1902.

In order to restore the ratio that existed in 1902, it would be necessary to hire 53,000 additional conductors and motormen or else dis-

charge 54,000 employees. I do not say that either of those two is possible or desirable. It is not. But that is what would have to be done in order to restore that ratio.

That curve is also a measure of efficiency, not direct, not absolute efficiency, but relative efficiency. Because the conductors and motormen in 1917 as compared to them in 1902 are doing the work of 209,000 men with only 136,000 men. In other words, their efficiency has increased 54 per cent as compared to the other employees.

Mr. LAUCK. You would be willing to concede there, would you not, to be perfectly frank, that this may be brought about by a better capital equipment, or by outlays of capital? There might be larger cars or a larger number of passengers per car-mile made possible by added capital investments, to be perfectly frank about it?

Mr. STURGIS. It would be possible also by addition of trailer cars and one-man cars.

Mr. LAUCK. Yes.

Mr. STURGIS. It would also be brought about this way: It is possible that the companies have felt the necessity of analyzing their costs more and have increased the number of their office force, as they have very largely—their clerks.

Commissioner GADSDEN. Don't you think that another explanation is that the equipment gets older each year and the car-barn forces are materially increased?

Mr. STURGIS. You mean getting more and more run down and depreciated each year?

Mr. GADSDEN. Yes.

Mr. STURGIS. Well, of course, it would not, if they kept it up.

Mr. WARREN. Are there not more men employed on the road or might not there be?

Mr. STURGIS. As trackmen?

Mr. WARREN. Yes.

Mr. STURGIS. Yes; in the same way with the equipment, if the road is allowed to be run down—

Mr. WARREN. I mean inspectors and guards and that sort of thing.

Mr. STURGIS. I do not know, Mr. Warren. It might be; yes.

Mr. LAUCK. The thing that Mr. Gadsden mentions—the point there that it was quite comparable with the steam railroads, where you examine their costs; there you find the trainmen costs per train-mile have gone down but the other labor costs have gone up, because it takes a larger force for maintenance and upkeep.

Commissioner GADSDEN. Yes; that is in my mind. I do not say that the figures are especially significant one way or another in this inquiry.

Mr. LAUCK. They would be significant from the standpoint of the motormen and trainmen, showing that they are doing more. It would not be significant from the standpoint of the company, because they would have tremendously higher labor costs and so forth.

Commissioner GADSDEN. Yes. I mean compared with the larger problem.

Mr. STURGIS. By taking the census reports which give the total salaries paid to the different groups and also give the absolute num-

bers in certain of the groups, we are able to plot Chart B-1, which is the next one which follows—page 15.

Chart B-1, the top curve shows the average yearly salary of salaried officers. The middle full line shows the average yearly salaries of managers and superintendents and the last full line shows the average yearly wage of conductors and motormen. Plotted in dash and dot is shown the increase since 1902 in per cent of salaried officers, managers and superintendents, and conductors and motormen.

That is the question that Dr. Meeker asked; or was it you, Mr. Gadsden?

Commissioner GADSDEN. No; I think it was Dr. Meeker.

Mr. STURGIS. The salaried officers, you will note, increased 78 per cent; managers and superintendents increased 55 per cent; motormen and conductors increased 54 per cent. Those are average salaries of individuals.

Commissioner GADSDEN. But not the gross amounts.

Mr. STURGIS. It is not the aggregate; it is the average individual.

Now, I can put right in here, in case you wish it, this information: The average for motormen and conductors in 1902 was \$606 a year; in 1907, \$655; in 1912, \$727; in 1917, \$934.

Now, it is possible to make an estimate of 1918 by assuming the same increase in yearly wage as took place in average hourly rates; that is, assuming the same number of hours. That would bring the 1918 yearly wage to \$990. If you make that same assumption, you can estimate the 1919 wage for motormen and conductors at \$1,200.

Now, checking that up in this way, in 1902 the average hourly wage was 18.5 cents an hour. If that is multiplied by 10 hours and by 325 days a year, it brings \$601 per year, which compares with the census figure of \$606.

Now, that 10 hours is about what it was in 1902 on the small number of roads that I am familiar with. I think it was about the average all over the country. The 325 days a year is the figure that has been usually taken as the average number of days that a trainman works. That was the figure that was first brought out, to my knowledge, in the 1913 Boston Elevated arbitration. It came up again in the Rhode Island Co. arbitration in figures offered by the company and has been affirmed by various companies before the War Labor Board.

I was interested the other day—I asked Mr. Rea what his estimate was and he said the same—325 days a year. I think he testified to that this morning.

In 1917 you can get a check by applying the average wage rate, which was then 30 cents an hour, multiplying it by 9½ hours—the hours have been slightly reduced—and 325 days, which gives you \$926 a year as against the census figure of \$934.

In 1919 my estimate of \$1,200 can be checked by taking the hourly wage of 41 cents an hour, which was the average rate on January 1, 1919, and multiplying that by 9 hours and 325 days, which gives \$1,199 a year.

Commissioner SWEET. Can you bring that down to date?

Mr. STURGIS. It brings it down to date, assuming that the wages of 1919 are going to continue throughout the year for the average all over the country.

Commissioner SWEET. But they have been raised since the 1st of January, 1919, in some places.

Mr. STURGIS. There have been raises in about 20 roads that I know of out of a trifle over 1,000 in the country, but the average will be increased.

Commissioner SWEET. You have no means of giving us an estimate of what that would be?

Mr. STURGIS. No; and when I say I know 20 roads I do not mean to say that none of the other 980 have received no increases.

Commissioner GADSDEN. Could not you, for our purposes, determine what the percentage of increase on those 20 roads has been and let us take——

Commissioner SWEET. Assume they have all been raised in that same ratio or proportion.

Mr. LAUCK. You could do that, could you not?

Mr. STURGIS. I do not see how I could do it, on account of the difference in hours that has taken place.

Mr. LAUCK. You can get more or less of an approximation. If I understand Mr. Gadsden's point, he thinks they will have to meet it in the future anyhow and assume what it would be——

Commissioner GADSDEN. I think it is fair to the inquiry to take this for a supposition, which is a serious one, I think, that these wages generally probably will go up here. Now, they have already gone up in certain localities 10, 12, or 15 per cent. Now, if we arrive at the average of that percentage and apply it to the entire industry, it would give approximately what the increased burden on the public will be.

Mr. LAUCK. I think we can do it. *

Mr. STURGIS. I could not do it offhand.

Mr. LAUCK. I mean you can submit it to the commission later.

Mr. STURGIS. I can make a pretty good stab at it, but I do not know what value it will be. I will do what I can on it.

Commissioner GADSDEN. Just one other question in that connection: These yearly receipts which you have given us do not take into consideration any overtime?

Mr. STURGIS. The census figures take in the whole story, because those are the total amounts paid by the companies in wages. My figure that I used as a check does not take in any of the amounts used as overtime, but, on the other hand, my figure is the average of the maximum wage rates. It takes no account of the graduated scale, so my figure that I used as a check is really higher than the average wage rate that actually exists, and the fact that the two figures compare makes me think that what is paid as overtime about balances the discrepancy between the actual wage rate and the average maximum wage rate.

Mr. LAUCK. In other words, you took the total labor costs and divided it to get the average actual earnings, did you not?

Mr. STURGIS. The total labor costs for the group, and divided it by the number of individuals in the group as reported.

Mr. LAUCK. That would include overtime and all other arbitrary allowances?

Mr. STURGIS. It includes everything that is paid for the labor of that group.

Now, I plotted another curve, B-2, to show what the wages of the trainmen would have been if they had received the same per cent in increase which was received by the salaried officers. That is Chart B-2, and follows page 18. The dotted line is the average wage as it would have been, and the full line is the average yearly wage as it actually was. The vertical difference between the two curves represents for that year the amount of dollars the average motorman and conductor lost in that year through his inability to obtain the same percentage increase that was given to the salaried officers.

The 1917 loss was \$146. The total loss, adding together the verticals for each year since 1902 to and including 1917, is \$1,805, which represents the total loss of a man who has been employed for the full period of time—the full 15-year period—and multiplying that \$1,805 by the average number of motormen and conductors in the employ of the company from 1902 to 1917, it would cost the companies over \$200,000,000 to make up this amount to-day.

The next curve, Chart 2-BA, shows that in a graphic form—the same thing. The upward steps, yearly increments, is the amount lost that year, and the distance from the top of any one step down to the zero line is the amount lost since 1902 up to that year. Of course, if a motorman and conductor entered the service of the company in 1912, he would lose the difference only from the 1912 step up to the 1917 step.

Commissioner GADSDEN. Who do you include under the term "salaried officials"? Do you mean salaried employees?

Mr. STURGIS. No.

Commissioner GADSDEN. Or do you mean what you say?

Mr. STURGIS. That is not salaried employees; that is the census figure used, salaried officers. It is more the general officers; it does not include for instance the managers and superintendents. The managers and superintendents as shown by Chart B-1 have received an aggregate percentage increase since 1902 of 56 per cent; the motormen and conductors 54 per cent.

Commissioner GADSDEN. This is just what it means then; it means the officers of the company.

Mr. STURGIS. Salaried officers.

Commissioner GADSDEN. I thought maybe it included everybody on a yearly salary.

Mr. STURGIS. No; it does not include the clerks.

Mr. LAUCK. It means just the general officers?

Mr. STURGIS. Yes.

Mr. WARREN. It does not include the clerical force in the offices?

Mr. STURGIS. No; it does not.

Mr. LAUCK. Have you the census reports here, Mr. Sturgis?

Mr. STURGIS. Yes; the bottom book.

Mr. LAUCK. If you read that classification—maybe it is given there.

Mr. STURGIS. On one of those photostat plates that is stuck in is where I got the material from.

Mr. LAUCK. You mean those advance sheets?

Mr. STURGIS. No.

Mr. LAUCK. I thought maybe the census itself stated what it meant.

Commissioner SWEET. Mr. Sturgis knows himself what he included under the head of salaried officers and his statement is entirely satisfactory.

Mr. LAUCK. All right.

Mr. STURGIS. Taking up these respective numbers of the three groups per car-mile and per mile of track and per revenue passenger, it is shown in the next three charts, B-3, B-4, and B-5.

On page 25 I have got the change per car-mile from 1902 to 1907. The number of conductors and motormen have decreased 9.9 per cent—

Commissioner SWEET. Is that on B-3?

Mr. STURGIS. That is chart B-3; and on page 25 I have summed up the showing. The number of conductors and motormen per car-mile has decreased 9.9 from 1902 to 1917. The number of employees on salaries has increased 101 per cent and the number of all other employees has increased 29.8 per cent, showing, as I said, a reduction in the number of conductors and motormen and an increase in the other two groups.

On page 27 there are summed up the miles of track which I will not read, and on page 29 there are summed up the revenue passengers, as follows: Per revenue passenger the number of conductors and motormen has decreased 29.4 per cent; the number of employees on salary has increased 59 per cent, and the number of all other employees has increased 9.1 per cent.

Another way of presenting these figures is to show the average number of revenue passengers handled per car crew per year, which is shown on Chart B-6; the lower of the two curves showing the per cent increase. It shows that the average car crew handled 40 per cent more passengers per year than it did in 1902.

Mr. LAUCK. They did that in less hours, too, did they not?

Mr. STURGIS. Yes; their hours decreased at the same time.

Mr. LAUCK. So their efficiency would be greater than that per hour?

Mr. STURGIS. I call attention that that shows revenue passengers and not transfer passengers. Now, those 35 roads that I spoke to you about; the efficiency curves are shown in a set of charts which were prepared by Mr. I. A. Rice. By the efficiency I mean the revenue passengers handled. I was not able to obtain from the Interstate Commerce Commission the numbers of motormen and conductors. They show only the number of transportation employees, which includes motormen and conductors, and also includes other employees engaged in transportation. It would include car cleaners and men employed in the car house, not on repairs; it would include switchmen, crossing tenders, and others of that class. But the motormen and conductors are the largest items.

The roads from New York State, however, which are in this book, although we have labeled the curves revenue passengers per transportation employees, to have them all uniform—the roads from New York State are motormen and conductors only. We could obtain that in New York, where we could not obtain it elsewhere.

We made no composite chart of these efficiency curves for the reason that some of them were per transportation employees and some of them for motormen and conductors. But taking them as they are, the average increase of those 35 roads from 1912 to 1917 is 20.5 per cent, whereas the census figures from 1912 to 1917 show an increase of 16.1 per cent. That is not a very close check, but that is the way it came.

If, instead of taking the efficiency as represented by the number of passengers handled, it is taken as representing the amount of operating revenue, per car crew, the relationship is shown on Chart B-7. The per cent increase in operating revenue per car crew from 1902 to 1917, being 5.45 per cent, and if the decrease in hours is taken into account, that would be rather higher.

Commissioner GADSDEN. Mr. Sturgis, right there, without reference to the relative merits of this chart you have prepared, insofar as motormen and conductors are concerned, looking at the industry as a whole from the standpoint of the public, this chart would seem to indicate that the electric-railway industry had increased in efficiency—that is, handling more passengers?

Mr. STURGIS. Handling more passengers per car?

Commissioner GADSDEN. Yes; at a lower ratio of expense?

Mr. STURGIS. Well, that, in itself, would tend to lower the ratio of expense; yes.

Commissioner GADSDEN. Yes. Irrespective of what quarrels there may be between the management as to the division of that, it would seem to prove that the industry, as an industry, has been working out for itself some very substantial efficiencies, would it not?

Mr. STURGIS. These curves show essentially the same thing as were shown by the curves introduced by Mr. Welsh.

Commissioner GADSDEN. Yes. I wanted to bring that out for the benefit of the commission. While we may quarrel as to whether one class got their proper share, as an industry, these charts seem to go a long way toward establishing the fact that we have been increasing in efficiency, have been rendering more service to the public. Isn't that true?

Mr. STURGIS. Yes, I think so.

Commissioner GADSDEN. And, of course, from the standpoint of this commission, that is a very important fact; because what we are trying to bring before the public is, if this industry needs relief, we must be able to show that it has, itself, been endeavoring to work out efficient operation.

Mr. STURGIS. Yes. I am trying to bring out that same fact that Mr. Welsh brought out, but I am going a little bit further than he did by claiming that that efficiency is the result of the motormen and conductors.

Commissioner GADSDEN. Yes; I appreciate that.

Mr. STURGIS. I do not mean to say that the motormen and conductors went out and drummed up trade for their cars. They could not do that; but their increase, the increase in the efficiency of the motormen and the conductors, resulted in an increase in efficiency of the companies.

Mr. LAUCK. You are willing to concede further, are you not, Mr. Sturgis, that this efficiency might have been made possible by added capital investment on the part of the company in heavier equipment, but that if the wages were increased it had a practical effect in not increasing labor costs on the part of the company for motormen and conductors? In other words, your main idea is to show, is it not, that as a result of this efficiency, wherever emanating, the wage increases have not resulted in higher labor cost to the company commensurate with the increase in the wage rate?

Mr. STURGIS. Yes; that is just it, Mr. Lauck.

The next section takes up the wages of trainmen as compared with the operating revenue, and the first chart is Chart C.

It is seen from Chart C—

Commissioner GADSDEN. What page are you on now, Mr. Sturgis?

Mr. STURGIS. Following page 33.

From Chart C it is seen that in 1902, the wages of trainmen amounted to 1.7 per cent of operating revenue.

The ratio dropped from 1902 until 1912. In 1912 it was 18.3 per cent of the operating revenue. It then started to go up: In 1917 it was 20.1 and in 1918 it was 22.3 per cent. It also shows that while the operating revenues increased in the aggregate \$444,000,-000, the wages of trainmen increased in the aggregate \$106,000,000.

I have got that same curve here plotted for these 35 individual roads under Part II.*

Mr. WARREN. Before you get to that: Could you tell in Chart C, approximately where that ratio line would go on the chart if you assumed an increase of 20 per cent in 1919?

Mr. STURGIS. In what?

Mr. WARREN. In wages of trainmen.

Mr. STURGIS. What would you assume for the revenue?

Mr. WARREN. Suppose, in the first place, it remained the same?

Mr. STURGIS. Supposing it remains the same?

Mr. WARREN. Yes.

Mr. STURGIS. It would go, roughly, to 26.75. That is, assuming that the revenue remains the same.

Mr. WARREN. If the revenue increased in the same proportion as the wages, would they both go along together?

Mr. STURGIS. They would both go along together, practically, if the increase is the same.

On the composite curve, which is the first curve, I would like to call your attention to the check that that gives to the census figures.

In 1912 the census ratio is 18.3, and the composite ratio is 18.68.

In 1917 the census ratio was 20.1, and the composite ratio 20.87.

In 1918 the census ratio was 22.3, and the composite ratio 22.8.

I do not want to call attention to any of these individual roads. Some of them are fairly good. Some of them are not.

There is one curve there—that is the Binghamton Railway Co.—which is toward the end, Chart 128-A. For the Binghamton Railway it shows the ratio of the wages of conductors and motormen to the operating revenue has gone down very rapidly until 1917, and then had an upshoot.

I believe that the Binghamton road, however, is in the hands of a receiver, is it not?

Commissioner MEEKER. It is.

Mr. STURGIS. The next three charts which follow page 35, C-1, C-2, and C-3, show the operating revenue and the wages of trainmen, respectively, per car-mile, per mile of track, and per revenue passengers.

I can, if you wish, give you the composite figures also.

Per car-mile the census figure, the railway operating revenue per car-mile was 27.9, the composite was 27.94.

In 1917 the census was 30.4, the composite 30.49.

In 1918 the census was 33.7, the composite 34.55.

The increase from 1902 to 1918 is shown on page 39.

Per revenue per car-mile, operating revenue increased 11.8 per cent; wages of trainmen, 3.19 of a cent per revenue passenger; the operating revenue increased .98 of a cent; and the wages of trainmen .37 of a cent.

Commissioner MEEKER. I thought your figure for operating revenue was .95 instead of .98?

Mr. STURGIS. That .95 was the increase in total salaries and wages.

The composite curves of wages of trainmen per revenue passenger do not show quite as big an increase as the census curve of wages and trainmen per revenue passenger. Instead of showing .37 of a cent between 1912 and 1918 they show only .26 of a cent. I say between 1912 and 1918. You notice the census curve between 1902 and 1912 showed no change.

The balance of operating revenues per revenue passenger, after paying off the trainmen, increased—I have not got this on any page, but it is a fairly important figure, and I think it would be well to write it in on page 38—in 1902 the balance of operating revenue per revenue passenger after paying trainmen was 4.22 cents. In 1907 it was 4.40 cents. In 1912 it was 4.70 cents. In 1917 it was 4.59 cents. In 1918 it was 4.83 cents.

The next chart is C-4. It plots the figures reported by the census showing the ratios to operating revenues of the three classes of employees which they give, namely, conductors and motormen, employees on salaries, and employees exclusive of those two.

You notice on Chart C-4 that the ratio of wages of conductors and motormen goes down, while the other two go up.

Mr. WARREN. Mr. Sturgis, those figures that you said should be written in on page 38, are those taken from your composite—

Mr. STURGIS. No; those are the results of the census figures.

Mr. WARREN. How about 1918? That is from the Electrical Association?

Mr. STURGIS. 1918. The number of revenue passengers I took from Mr. Welsh's estimates; and the railway operating revenue I took from his estimate; and the wages of trainmen I took at 75 per cent of the item of conducting transportation as he estimated.

On Chart C-5 I have compared the wages of trainmen with the total income of electric railways, from all sources, including in the total income items which have nothing to do with operation.

It is not a usual comparison to make, by any means, but it shows that the ratio of trainmen's wages in 1918 was essentially the same as it was in 1902. In other words, in 1902 the companies had available 81 per cent of their total income from all sources with which to pay all their other operating expenses, dividends, and all the interest.

In 1918 they also had 81 per cent. So, as far as net income is concerned, after operating expenses, the wages of trainmen has no effect upon it. The increase in the wages of trainmen has had no effect upon it.

Mr. WARREN. What year did you take—1918, and what was the earlier year?

Mr. STURGIS. 1902.

Mr. LAUCK. The actual figures for that are shown on page 42; are they not?

Mr. STURGIS. On page 42; yes. I say no effect. Of course, in 1902 the ratio is 19.4, and in 1919 the ratio is 19.8. There is an effect.

Mr. WARREN. A very slight effect?

Mr. STURGIS. Yes.

Mr. WARREN. Is that 1918 figure, the one at the end of the year that you spoke of—the wage rate in 1918?

Mr. STURGIS. It is not the wage rate.

Mr. WARREN. Oh, it is the total?

Mr. STURGIS. It is the total.

Mr. WARREN. From the census?

Mr. STURGIS. Well, Mr. Welsh's estimate.

Commissioner MEEKER. I am not quite clear. Does that contain the latest information obtained by Mr. Welsh?

Mr. STURGIS. In 1918; yes.

Mr. LAUCK. Of course, you are not denying there are other increases in operating expense, but proving the immunity of the trainmen?

Mr. STURGIS. The other operating expenses have increased, Mr. Lauck. For instance, I gave you the balance of the operating revenue per revenue passenger after paying the trainmen. Now, perhaps you would like the balance after all operating expenses, per revenue passenger?

In 1902 that was 2.28 cents.

Commissioner MEEKER. Is that shown here?

Mr. STURGIS. No; I did not show that.

In 1902, 2.28; in 1907, 2.11; in 1912, 2.39; in 1917, 2.03; in 1918, 1.74.

Mr. LAUCK. In other words, you concede that the margin of safety has decreased, but has not been due to trainmen?

Mr. STURGIS. It has decreased very much.

Mr. LAUCK. But the trainmen are not responsible?

Commissioner GADSDEN. If you had the 1919 figures there we would probably lose that .74 and get under the flat 1?

Mr. STURGIS. You would lose something, I think. I don't know whether you would lose the .74 or whether you would lose the 1.

Commissioner GADSDEN. Or the 1.74?

Mr. STURGIS. The next comparison is really the most important of all. It shows the wages of trainmen as compared to railway operating expenses, and the first chart under it, is Chart D, following page 43, which shows the ratio between the wages of trainmen and the total operating expenses. It shows that the ratio has decreased since 1902.

I will put in here Part III, showing the composite charts.

In 1902, the census ratio was 34.8.

In 1907, it was 30.5.

In 1912, it was 30.8, and the composite was 31.11.

In 1917, the census was 31.1, and the composite was 31.41.

In 1918, the census was 30.9, and the composite was 30.55.

A fairly close check, but since 1912, up to 1918, there is a very slight increase in the census, and a slight decrease in the individual roads.

Do you want me to take time to go through the individual roads, Mr. Lauck?

Mr. LAUCK. I think not. I think the general principles will suffice. Just at the pleasure of the commission. I suppose the commission will be more interested in the established general principle, rather than in the individual roads?

The CHAIRMAN. Yes. The books will be available?

Mr. LAUCK. Yes.

Mr. STURGISS. In looking through this exhibit, it is interesting to see, in general, the curve of wages of conductors and motormen to operating expenses falling, and the curve of fuel generally rising, particularly since 1916.

Taking the first road, for instance—the Bay State Street Railway—

Mr. WARREN. Which part is that you are referring to now?

Mr. STURGIS. Part III, the last one.

The CHAIRMAN. On what page do you find the Bay State, Mr. Sturgis?

Mr. STURGIS. It is the first chart after the composite chart. They are in numerical order.

With the Bay State the ratio of conductors and motormen fell off slightly and fuel had a marked increase.

The Berkshire is rather complicated. That is the next one. Conductors and motormen have fallen off, and fuel increased considerably since 1916, power purchased remaining constant.

In the next one, the Capital Traction Co., the ratio of conductors and motormen increased from 1917 to 1918.

The next one, Chart D, 103, Chattanooga, power purchased increased so much that I do not think you can pay much attention to it.

The next one is the Cleveland Southwestern & Columbus: Conductors and motormen fell off except for the slight upkick, and fuel goes up tremendously.

The next one is the Cumberland County, of Portland, Me. The next one is the Detroit United. The next one is Duluth. Fort Dodge, Des Moines and Southern.

The CHAIRMAN. This exhibit speaks for itself, does it not?

Mr. STURGIS. It does; yes, sir. I think I will leave it there.

I want to call your attention to an exhibit of Mr. Welsh. His chart was numbered C-155.

That chart, which I have reproduced as my Chart D-O, is really somewhat of an optical illusion, because it is composed of cumulative figures; each line in the chart is the sum of all the other items below it. The result is that the top group always looks as though it had increased more than it actually has increased. That illusion is somewhat helped by the slant of the line.

My next chart, Chart D-O-1, I have taken those same figures and charted them upside down, putting the wages of trainmen on the bottom and traffic and general on the top. I showed those two curves to several people, without telling them what it was, and they would not believe that they were the same figures. The second chart looks as though wages of trainmen had increased very little, whereas the traffic in general has increased a lot. I do not claim anything for this second chart. The illusion is just as bad as the first one.

But after having criticized cumulative charts in that way, I am going to introduce one of my own, Chart D-O-2. That is open to all the criticism that I have already made of the other two, with this exception—that the lines are more horizontal, so the illusion does not show up so much, but there is, even in this, a certain amount of illusion.

This chart shows the operating expenses of the different items per operating revenue, the top line of all being what is called the operating ratio.

The operating ratio from 1902 to 1918 increased from 56.7 to 72; that is an increase of 15.2 points. You can not say it is an increase of 15 cents; it is an increase of 15.3 points, as I call it. I have shown the make-up of that increase on page 49. Wages of trainmen contribute 2.6 points; other conducting transportation, 2.5 points; power, 2.8 points; way and structures, 3.7 points; equipment, 3.3 points; traffic and general, .4 of a point. You might say the increase due to the wages of trainmen was 17 per cent of the total; that is, 2.6 is 17 per cent of 15.3; but that figure does not mean so very much.

The next chart, D-O-3, are the per cents of total operating expenses per revenue passenger, plotted as they are, and not cumulated. And that is another ratio curve. And, coming on to the next chart, D-O-4, you get the absolute number of cents for revenue passenger that it costs to operate for the different accounts.

The next curve, D-O-5, shows the increase in per cent of the different accounts per revenue passenger.

Mr. LATCK. At that point, Mr. Sturgis, may I ask this question: In your comparison of operating ratios, the ratio of these other items to operating expenses, there are two variables, are there not? That is, it may be something affecting revenue or higher wages, but here you have an absolute standard, have you not?

Mr. STURGIS. Yes; these are the actual number of cents, revenue passenger, that it costs for the different items and the increase in each of the items. Now, the increase is shown on page 53.

Wages of trainmen increased 35.9 per cent per revenue passenger. Other conducting transportation increased 78.8 per cent; power, 57.2 per cent; way and structures, 96.5 per cent; equipment, 76.2; traffic and general, 21.8. So all those, with the exception of traffic and general wages of trainmen, increased the least per cent. The increase in actual number of cents I have not shown, but it is as follows:

Wages of trainmen, .37 cents; other conducting transportation, .20 cents; power, .28 cents; way and structure, .28 cents; equipment, .27 cents; traffic and general, .12 cents.

The total increase in operating expenses per revenue passenger is 1.52 cents. That compares with the increase in revenue per revenue passenger which was .9 cents; which shows the operating expenses have increased .6 more than revenues have increased.

Of this 1.52 the increase of conductors and trainmen, which was .37, amounts to 24.4 per cent. In other words, the wages of trainmen are responsible for 24.4 per cent of the total increase in cost of operating expenses per revenue passenger.

Mr. LATCK. That is for 18 years, is it not? Or 1902 to 1918?

Mr. STURGIS. 1902 to 1918; yes, sir. That is taking the census figures.

Mr. WARREN. That means in the aggregate, I suppose—the aggregate wages of trainmen?

Mr. STURGIS. Per revenue passenger; yes.

Mr. LAUCK. That is the labor cost, is it not, Mr. Sturgis?

Mr. STURGIS. It is the labor unit cost. The following three curves, as before, show the ratios per revenue car-mile, per mile of track and per revenue passenger.

The last parts, Part IV and Part V, show the individual roads for the years. I will not take the time to read these checks, because they are about the same as they were before.

Mr. LAUCK. The per cents in the composite figures are about the same?

Mr. STURGIS. Yes. On page 57 is the result from the census. The per revenue car-mile wages of trainmen have gone up 3.2; total operating expenses 11.9. Per revenue passenger, wages of trainmen have gone up 0.37 per cent; total operating expenses 1.52.

Chart D-4 shows the same groups that are shown in the census, showing the per cent that wages bear to operating expenses. This ratio is given right in the census reports—that is why I have plotted it. It shows that the employees on salaries ratio went up; wages of employees exclusive of conductors and motormen and salaries went up from 1902, although they have fallen in 1907; wages of conductors and motormen have fallen steadily. When I say the wages have fallen, I mean that the ratio of wages to operating expenses has fallen.

If you segregate the operating expense and instead of plotting the total operating expenses against wages of trainmen, if you plot the balance of the operating expense against wages of trainmen you will get Chart 5. Of course, the total operating expense includes the wages of trainmen.

On Chart D-5 subtract the wages of trainmen from the total operating expense and plot the result against wages of trainmen. The curve has the same general shape as before, but the fall, of course, is greater. The fall is from 53.4 per cent in 1902 to 44.7 in 1918.

The next chart, which is D-6, plots first the actual wages of trainmen, and above it plots the wages of trainmen as they would have been if they had been increased in the same proportion as the other railway operating expenses.

In 1918 if that had happened it would have cost the companies \$30,000,000 more than it did cost; and that is an increase of 19.5 per cent—nearly 20 per cent. If you aggregate those losses from 1902, the total loss to the trainmen is \$277,000,000, due, as I say, to their inability of obtaining the same increase as took place in the other operating expenses.

Commissioner MAHON. From what year?

Mr. STURGIS. From 1902 to 1918. The total is \$277,000,000.

Mr. LAUCK. Mr. Sturgis, you do not claim that they should have had those increases but are stating that that is what it would have been if they had had proportionate increases, as I understand.

Mr. STURGIS. Yes, sir. If you turn that statement just around and calculate what the saving to the company would have been if

they had kept their other operating expenses down to the same increase that they gave to the trainmen, you get the next chart, which is E. You see what I mean by that. If their operating expenses they had succeeded in keeping reduced in the same way that they kept the motormen and conductors reduced, then the railways would have saved in the year 1918, \$55,000,000, and the aggregate saving since 1902 would have been \$524,000,000.

Commissioner GADSDEN. Mr. Sturgis, is there not another way of stating that, that the wages have lagged behind the cost of material?

Mr. STURGIS. Yes; most largely the cost of material; of course, other things go into it.

Commissioner GADSDEN. Of course, that is true of all industries.

Mr. STURGIS. I could not say about that.

Commissioner GADSDEN. That their wages lag behind the material.

Mr. STURGIS. I do not claim that the company could have made this saving, Mr. Gadsden; I am not criticizing the company. It is merely another way in showing in graphic, and I think rather startling, form—perhaps too startling—that the wages have lagged.

Commissioner GADSDEN. Yes. I am trying now to bring out whether that is not a general rule—that wages do lag behind material; wages are the last to respond to increases. The material costs, of course, are first, and that is what has happened not only in this industry but in all industries.

Mr. STURGIS. I think, to a large extent, that is true in all industries, but I could not do any more than generalize. I could not quote any figures on that.

Commissioner GADSDEN. That is all I am doing.

Mr. STURGIS. The only figure I could quote on that is what the gentleman said about the cost of those Birney cars. He says that a few years ago the costs were 50-50 for material and for labor, and now the cost is about two-thirds for material to one-third labor.

Commissioner MAHON. In that increase, Mr. Sturgis, the other officials have had the benefit of that increase over the employees?

Mr. STURGIS. The general officers?

Commissioner MAHON. The general officers of the company.

Mr. STURGIS. Yes; their increase was 78 per cent. I think you were out, Mr. Gadsden—you asked a question this morning about the individual wages. That is shown on Chart B-1, which follows page 15. The general officers since 1902 increased 78 per cent up to 1917, whereas the conductors and motormen increased only 54 per cent.

Commissioner GADSDEN. I was here, but I asked you a question whether—

Mr. STURGIS (interposing). Yes; you asked me this morning.

Commissioner GADSDEN. Yes; I understand that.

Mr. LAUCK. Mr. Gadsden, if I might answer your question—I looked it up during the recess, and it means the salaried officers of the corporation.

Commissioner GADSDEN. That is what Mr. Sturgis stated.

Mr. STURGIS. The next chart, F, is a chart that Mr. Welsh overlooked and I could not resist the temptation to put it in. It shows that the efficiency of capital of the company has increased. It shows the net capitalization per dollar of income; in other words, dividing

the income of the company by the capitalization, the capitalization in 1917 per dollar of income is less than 1902.

Commissioner GADSDEN. That might be due to squeezing the water out.

Mr. STURGIS. It would, if the cost per mile had gone down, but the cost per mile has not gone down. It has gone up. It depends upon what you mean by squeezing water out. It means that capital is being used more efficiently than it was.

Commissioner GADSDEN. That is another way of stating it, is it not?

Mr. STURGIS. No; not necessarily. The water may be in there, but you may be using the water. But if the water once gets in there you can not squeeze it out unless you put in actual money to represent it, and this does not mean that you have done that. This means you are using your equipment better, and by better I mean more than you have before.

Commissioner GADSDEN. It means as an industry you are rendering more service for the same capitalization?

Mr. STURGIS. Yes.

Commissioner GADSDEN. Which is another way of earning your water?

Mr. STURGIS. No.

Commissioner GADSDEN. So far as the public is concerned.

Mr. STURGIS. If water once gets in you can not get it out unless you take it out.

Commissioner GADSDEN. I know; but so far as the public is concerned it is getting more for its money in 1917 than in 1902 by several millions of dollars.

Mr. STURGIS. Well, I won't say it is getting more for its money. It is getting more.

Commissioner GADSDEN. It is getting more?

Mr. STURGIS. Yes; I think it is getting more for its money, but I do not think this shows it.

Mr. WARREN. You might get it out through reorganizations, might you not?

Mr. STURGIS. That is taking it out with a vengeance.

Mr. WARREN. But it does take it out.

Mr. STURGIS. You bet it does.

Mr. WARREN. There have been some of those in the last 15 years, have there not?

Mr. STURGIS. Yes; but the cost per mile has gone up even with that.

Mr. WARREN. That might be because of the increased cost of material and labor and new construction cost, I suppose.

Mr. STURGIS. Yes; it might. The next chart shows the riding habit as I figure it. Mr. Welsh showed the riding habit, and I agree with him up to 1917—in fact, he used census figures—but I do not agree with him in 1918, because he did not subtract from the population of the country four million and some odd men who were withdrawn from civil life for the use of the Army and Navy. If you subtract the Army and Navy from the population your riding habit still goes up, not so much as it had in the past, but it still goes up slightly.

I figured the riding habit in 1918 as 110 rides per inhabitant. He figured it, I think, at 106.

The next thing I did was to attempt to plot the wage rates of the motormen and conductors against the cost of living.

The data for that was this: I was able to secure the wage rates of the different locals of the Amalgamated Association for 1902 and in 1917, 1918, and 1919. Now, there were only 32 locals in 1902 that were also in existence in 1917. So I pieced together the relative of those two years with the relative obtained by taking all the locals that existed in 1917, 1918, and 1919 and in that second group I was able to get 227 locals.

As a check, the average wage of the 32 locals in January, 1917, was 29.73 cents, whereas of the 227 locals it was 30.01 cents.

Mr. LAUCK. Page 76, is it not?

Mr. STURGIS. Seventy-six; yes. I furthermore added a third set, taking the figures from the book, *Wages in the War*, by Hugh S. Hanna and W. Jett Lauck, on page 64, giving me the wage rates in 1912, 1914, and 1917. The 1917 checked up with my figure for 1917—the 1917 rate was for December and I checked it up with my figure for December, 1918, as follows: Their figure was 32.03 and mine was 31.09; that is a difference of 0.41 cent. Taking all those three groups I figured the relative, which is shown in the last column, taking January, 1914, as 100, on Charts H and H-1, which are these two charts right there, I plotted that relative against the Bureau of Labor Statistics figures for the retail food price and the figures they have published from time to time on the cost of living. These two charts are on the same basis, except they are on a different scale, and Chart H goes back to 1902.

I do not think the relationship between food and wages between 1902 and 1914 is of very much value, because I have not plotted the intervening years, except in 1912, and the shape of the curve might change, but the relationship in each of the years 1902 and 1912 and for 1914 and from 1914 on can be taken.

This curve, and especially Chart H-1, shows that since 1914 the average wage rates of motormen and conductors have not gone up as fast as the cost of living.

On January, 1917, taking this from page 85, wages had advanced 8 per cent since 1914; the cost of living had advanced 16 per cent. January, 1918, wages had advanced 15 per cent and the cost of living 41 per cent.

January, 1919, wages had advanced 48 per cent and the cost of living 72 per cent.

Wages have advanced an unknown amount since then and the cost of living also has advanced somewhat. I have the figures of the cost of living for 1919 up to July, and it went up from 172, as it was in December, to 175 in July. Dr. Meeker is raising it every month.

Commissioner MEEKER. It is lower for September, almost as low as in July.

Mr. STURGIS. Almost as low as in July, did you notice he said?

Mr. LAUCK. How far have wages lagged behind the increased cost of living, 1914 to 1919?

Mr. STURGIS. The wage rates would have to be increased about 16 per cent in order to bring them up to the cost of living as it then existed. The wage rates now would have to be advanced something higher than that to bring them up to the present cost of living, which is higher than it was last December.

Mr. WARREN. Sixteen per cent?

Mr. STURGIS. Sixteen per cent to bring them up to the December level of the cost of living.

Mr. WARREN. And somewhat higher to bring them up to the present cost of living?

Mr. STURGIS. Yes.

Commissioner MEEKER. May I ask a question there? You are giving here the retail food prices only?

Mr. STURGIS. Merely for comparison. You can not say that the cost of living varies with the retail food prices. It generally does not go up as much as retail food prices go up; especially before 1914, when clothing did not have the big increase that it has had since 1914.

Commissioner MEEKER. It would be easy for you to make the comparison with our index of cost of living for the months of December and June, which would be an interesting comparison. I have not those figures here, but they can easily be supplied to the commission if it so desired.

Mr. STURGIS. Well, I have the cost of living on here, Dr. Meeker, in that dotted curve.

Commissioner MEEKER. Well, you have not it listed here in your table, have you?

Mr. STURGIS. Yes; I took every—

Mr. LAUCK. We have an exhibit on the cost of living which has not as yet been presented to the commission, and Mr. Sturgis is anticipating it, in a way—going up to June. We will submit that when Prof. Ogburn comes on.

Mr. STURGIS. The wage awards of the National War Labor Board were made in about 90 street railways. The average increase per company unweighted amounted to $23\frac{1}{2}$ per cent and the average increase per trainman weighted amounted to $22\frac{1}{2}$ per cent. The result of those awards, as you see by the curve, during the period that the War Labor Board operated—the wage rates of conductors and motormen kept about parallel with the rise in the cost of living, but the wage awards of the War Labor Board found them at a low point and left them at a low point. They did not restore them to the cost-of-living curve. Mr. Taft made the statement in one of the cases—the case of the Bay State Street Railway, which he heard in December—that street-car men were and had been more or less notoriously underpaid. But in spite of that he did not increase them up to the same standard that they were in 1914.

That finishes the exhibit, Mr. Lauck.

Mr. LAUCK. I was going to ask you to read your conclusions, but I think the points have been brought out so well that it would be probably simply a repetition. I have no further questions to ask, unless the commission has.

The CHAIRMAN. The exhibits are so complete that the chair does not care to cross-examine.

Mr. LAUCK. Mr. Warren, have you any questions?

Mr. WARREN. There are just one or two questions I want to ask.

You are going to try to bring some of these figures up to include the 1919 increases, I understood, approximately?

Mr. STURGIS. Yes. Now, what would be the best way of doing that, Mr. Warren? I can file a list, getting Mr. Mahon to help me, showing all the increases that we know about and can think of.

Mr. WARREN. I should think that would be helpful. It is simply as to the tendency since January 1, 1919, which is your latest date, I think.

Mr. STURGIS. Yes.

Mr. WARREN. When you had an average of 41 something?

Mr. STURGIS. Yes; 41 cents.

Mr. WARREN. Of course, we all know in a general way that many of the large cities have had very large increases, and I have had an impression—I might say a hope that—

Mr. STURGIS. That the others would have the same?

Mr. WARREN. That they had overtaken the cost of living in the last 8 months. I know that in certain companies that I personally represent I think that is true. Whether it would be true generally I do not know. But if you could make up that list, like New York, Brooklyn, Chicago, Detroit—

Mr. STURGIS. I do not know anything about Brooklyn.

Mr. WARREN. You do not? Probably Mr. Mahon could help you.

Commissioner MEEKER. May I ask there that in computing these wage rates, you do not make weighted averages?

Mr. STURGIS. No; it is not weighted at all. But for 1917, 1918, and 1919, taking the 227 companies, I think that will come pretty close to the correct figure.

Commissioner MEEKER. And in your weight computation which you are talking about now, you will take those same 227 companies?

Mr. STURGIS. I got all I know anything about.

Commissioner MEEKER. The point is, I think it would be unfair to consider companies merely as single units, if those companies are going to include such very important companies as the Boston Elevated, the New York rapid transit, and such very large systems.

It would seem to me that it would be necessary to make some system of weighting, even though it be an arbitrary system of weighting, unless you are going to include all the companies—

Mr. STURGIS. May I ask Mr. Mahon a question? Commissioner Mahon, would it take long to get from the Detroit office those 227 that I have taken, which existed in 1917, 1918, and 1919 as locals—to get their actual wages to-day?

Commissioner MAHON. No; it would not take long.

Mr. STURGIS. Why is not that the best way of answering the question?

Commissioner MAHON. We can wire to-night to the office and have them made up in a few minutes. We have a list of wages of each, and the corrections every day as they come in of the local organizations, and it would only take a few minutes to correct up the list and forward it on to you.

The CHAIRMAN. That can be filed, even after you conclude your testimony.

Commissioner MAHON. What he wants to do is to make a comparison of the conditions of wage as a general proposition.

Mr. STURGIS. That would be very easy when it arrives. We can just put it through an adding machine and get the result very quickly.

Mr. LAUCK. Mr. Gadsden wanted to go further, Mr. Chairman. He wanted to assume that the wage increases that had already been granted in the natural course of events would be granted to all other companies in the United States—

Commissioner MAHON. We hope so.

Mr. LAUCK. And thereby anticipate the condition which he would be confronted with in the future, or which the commission, as I gather from his point, would be confronted with in recommending as to the financial rehabilitation of the roads.

But my point is, if there has been an increase, commensurate with the increased cost of living since 1914, we would be perfectly willing to see that put in—which I do not think is true—but if it were—because we are going to claim that the 1914 wages were entirely inadequate, and that even if the entire living was secured, they would be entirely inadequate at the present time to maintain a proper standard of living.

Mr. WARREN. In other words, if 60 cents did balance with the increased cost of living since 1914, the employees would expect further increases to offset the original lack?

Mr. LAUCK. We were going to ask the commission to recommend that the principle of a living wage be established in the industry, irrespective of any wage increases from 1914 to 1919; because, if you increase the wages which were in effect in 1914, even to the extent of the increased cost of living, being inadequate in 1914, you would simply be perpetuating inadequacies.

Commissioner MEEKER. Are you going to submit a standard budget?

Mr. LAUCK. Yes; we are going to submit a budget.

Mr. WARREN. Are the 227 companies the ones that are listed here on page 79?

Mr. STURGIS. Yes. I make two lists there. The first list on page 78 of the 32 companies on which locals existed in both 1902 and 1917.

Mr. WARREN. Yes.

Mr. STURGIS. Following that on pages 79 and 80 and 81 and 82 and 83 and 84 are the 227 locals.

Mr. WARREN. And those are the ones that Mr. Mahon thinks he could readily obtain for you?

Mr. STURGIS. Yes. Those are the locals that existed in the three years 1917, 1918, and 1918.

Mr. WARREN. Yes.

Mr. STURGIS. There are certain other locals that have been formed since 1917 in there.

Commissioner MAHON. Oh, yes; there are nearly 100 more local organizations; possibly more. This ends at 739. The number now would run near 900.

Mr. STURGIS. Yes.

Commissioner MAHON. There are possibly 100 more local organizations affecting practically that number of cities that are not in this.

Mr. WARREN. For instance, Brooklyn would not be in here?

Commissioner MAHON. Brooklyn is not in here, and it would be in the other one; yes.

Mr. STURGIS. I have here, Mr. Warren, the wages of the motormen and conductors who are members of the Amalgamated Association of Street & Electric Railway Employees of America.

On February 1, 1917, the highest number of the local divisions was 736. That does not mean that there were 736 locals that year because some of the charters had expired; but that is the highest number.

On January 1, 1919, the highest number was 865.

Mr. WARREN. The other question I wanted to ask is this: All I am after, and I guess we are all after the same thing really, is to see what the tendency of wages is at present and what it is likely to be in the future, because I think that is important.

Referring to your chart or figures on page 42, Mr. Sturgis, where you give the ratio of wages of trainmen to the total income, have you figured anywhere the ratio of those wages to the net income of the companies?

Mr. STURGIS. No.

Mr. WARREN. You have not?

Mr. STURGIS. The net income fell off very fast. I have shown the actual net income on Chart E. It fell off considerably since 1912, with increased rates since 1917. Chart E is after page 65.

Mr. WARREN. Yes.

Mr. STURGIS. Of course if you figure the ratio of wages to that of net income, the ratio would rise, I should say, very largely.

Mr. WARREN. And it could be easily figured from those two charts?

Mr. STURGIS. Oh, yes. I can give it to you, roughly, if you want me to, in a very few minutes.

Mr. WARREN. I will not delay the commission for that, because I can figure it out myself. I just wanted to make sure of the raw materials.

Mr. STURGIS. If you want the figures of net income, they are on page 56, the actual net income starting with \$30,000,000 and ending with \$20,000,000.

Mr. WARREN. Oh, yes; page 56?

Mr. STURGIS. Yes.

Mr. WARREN. I think that is all.

(Witness excused.)

The CHAIRMAN. You may proceed, Mr. Lauck.

Mr. LAUCK. We would like to call Prof. Ogburn, of Columbia.

STATEMENT OF PROF. WILLIAM F. OGBURN.

The CHAIRMAN. What is your address, Mr. Ogburn?

Mr. OGBURN. Columbia University, New York City.

Mr. LAUCK. Prof. Ogburn, will you please state, for the information of the commission, briefly, your educational training and your present professional work? You are now at Columbia University, are you not?

Mr. OGBURN. Yes.

Mr. LAUCK. Will you state that briefly?

Mr. OGBURN. I am at the present time a professor in Columbia University in New York City.

Previous to that I occupied a position as special agent in the Bureau of Labor Statistics, and prior to that was an examiner—

Mr. LAUCK. As special agent of the Bureau of Labor Statistics, you were connected with the cost-of-living investigations and studies of standards of living, were you not?

Mr. OGBURN. Yes. The Bureau of Labor Statistics has been making a very important survey of the cost of living throughout the United States, and I have been working on that survey.

Mr. LAUCK. You were also in charge of the same work, simultaneously with the War Labor Board, working out increases in costs of living, and submitting memoranda as to the standard of living, for the information of the board, were you not?

Mr. OGBURN. Yes. I was director of the cost-of-living department of the National War Labor Board during the period of the war; the latter part.

Mr. LAUCK. And before that you were at the University of Washington?

Mr. OGBURN. Yes; I was professor at the University of Washington just prior to coming to the War Labor Board.

Mr. LAUCK. And you taught before that?

Mr. OGBURN. Yes; at Reed College, in Portland, before that; and at Princeton prior to going to Reed College.

Mr. LAUCK. During this period you have been interested in the study of budgets of working people and the study of the cost of living as affecting those budgets, have you not?

Mr. OGBURN. Yes. I have been more or less engaged in study along that line, particularly statistical studies of this nature.

Commissioner MEEKER. Would it not be well to read into the record, or have Prof. Ogburn, the very excellent cost-of-living studies he made in Seattle?

Mr. LAUCK. Yes, sir. I have thought of that and was going to take it up a little later. In our booklet on standards of living we reproduce that. I was going to have him explain that to the commission when he took that up. I think that is a very important point.

Before getting to that, though, I would like for Mr. Ogburn to take the exhibit which is based upon the Bureau of Labor Statistics study, with which he is familiar, and explain briefly the increased cost of living since 1914, and the methods by which that has been arrived at.

Mr. OGBURN. I understand the general question concerns the increase in cost of living during the recent war period and since.

I would like to state, in the first place, that it is, of course, quite difficult to measure accurately the increased cost of living, inasmuch as it is necessary to take a very large list of articles. To base them upon food prices alone would hardly be satisfactory; neither would it be satisfactory to take wholesale prices.

For purposes of wage adjustment it seems desirable to measure the increased cost of living upon articles which the family will purchase at retail prices in their daily living. This necessitates getting actual prices on a very large number of articles which a family consumes.

In order to combine these into a single number, it became necessary to weight them, as we say, or multiply them by some number

corresponding to the particular importance which it occupies in the workingman's family budget.

These surveys, on account of the perplexity and the difficulty in gathering the figures, really necessitate collection at first hand by trained experts; and even trained experts must continually be on their guard in order to get the most accurate figures.

Such a work has, I believe, been done only by one agency in the United States. I refer to the United States Bureau of Labor Statistics.

There were one or two earlier studies made by the Shipbuilding Labor Adjustment Board of this sort, but I believe, with the exception of an occasional local study, the only other source is the National Industrial Conference Board, which has made some studies which conform fairly closely to the United States Bureau of Labor Statistics' figures. While not wishing to criticize their figures particularly, I think it is worth calling attention to the fact that their data was, a good deal of it, collected by what we call the questionnaire method—sending out questions through the mail to rental agencies and chambers of commerce, which I think do give certain information, but I believe are not quite so accurate as the method of collection by trained agents, which the Bureau of Labor Statistics has undertaken.

Of course, the War Labor Board did, under my direction, make several studies for particular pieces of wage adjustment which it was necessary for them to make; but I think in a general way, one could say quite accurately that the Bureau of Labor Statistics is by far our best source of supply for information on this matter.

Mr. LAUCK. May I interrupt for a moment?

Mr. OGBURN. Certainly.

Mr. LAUCK. During the war was not the Bureau of Labor Statistics practically designated by the President as the official indicator of the increased cost of living, and the President, from his own funds, extended financial aid to this bureau for working up the increased cost of living so that it might be available for all wage adjustment boards and all agencies of the Government in determining increases in wages?

Mr. OGBURN. Yes; that is my understanding.

It first began by the Bureau of Labor Statistics being requested by a Governmental agency, the Shipbuilding Labor Adjustment Board, to give them figures; and there was an extension of their work later on, I believe, at the President's request and the granting of funds, especially, that they undertake this work.

So much in regard to the method by which we arrive at our figures; and I may say that, insofar as I have investigated the figures from European countries, I think the figures which we have in the United States are somewhat better than those collected abroad. I have had occasion to look into the figures which have been collected in England, and I believe that they are probably the best of the European figures, and I think ours are somewhat better.

Mr. LAUCK. Will you, then, take up and sketch briefly the increased cost of living set forth in exhibits since 1914?

The CHAIRMAN. Before he does that, may I ask just one question?

In every city there is a wide variation in the retail price of articles, of foodstuffs and other things in different stores, dependent upon

their quality, the investment, perhaps the distance from the centers of population. When you send your agents to a city to get this information, do you attempt to get the prices at the stores where the laboring people are most apt to trade?

Mr. OGBURN. Yes; the stores are selected as being those where the so-called workingman's family trades. In some cities it is a little bit difficult to do that. Take a city like Seattle: The workingmen have no particular stores as such; they trade all over the city. And that is surprisingly true in a good many cities. However, in some of the localities—perhaps it may be near the stockyard district in Chicago—there are special stores for the workingmen. I think a point right along that line which they did stress was the fact that it was necessary to take a pretty fair sample of stores and not just one or two stores; but I do not know just exactly what their number was. I imagine, however, that it would vary from 12 to 25 stores for a single article; so that it would take, really, quite a little while to make a single study. But I think that, by that precaution of selecting the stores, as much as possible, where the working people traded, and by taking a sufficiently large number, that difficulty of variation was obviated or overcome.

Mr. LAUCK. Then after you got these prices, how did you find out a particular weight in the workingman's family? For instance, porterhouse steak, or an article of clothing, or soup—anything of that kind? I think it would be well to explain how the Bureau of Labor Statistics arrived at a method of weighing the different articles after they had found the average price for the articles.

Mr. OGBURN. Yes; the method of weighting is, in general, determined by selecting a workingman's budget, and finding out, for instance, the amounts spent or the number of quantities of a particular article purchased in that family.

If you compute your percentage on each article, then you will multiply it by the total weight in the budget. On the other hand, if you took the price, you would multiply it by the quantity. In either case they give the same results. The result, however, is obtained, and can only be weighted at all, by making a study of the workingman's budget as such. That is, it is not only necessary to get the prices from the stores, but to know what a workingman's budget is, in order to get the result.

Mr. LAUCK. You found that out, or the Bureau of Labor Statistics did, by collecting thousands of workingmen's budgets and averaging them up then, as to what the typical family spent for each article, then giving it that weight or that quantity that they used?

Mr. OGBURN. The Bureau of Labor Statistics made quite a famous study in 1901, which covered, I think, maybe some 20,000 or more families, and the proportions, as determined then, probably will not greatly differ from those of the present time.

They had also quite a few studies made by the Shipping Board in the early part of the war.

Recently they have completed about some 15,000—10,000 or 15,000 family budgets, also of a recent period.

Commissioner MEEKER. I think that the number of budgets collected was about 30,000.

Mr. OGBURN. About 30,000.

Mr. LAUCK. So you had the experience of 30,000 families as to what they actually did spend to find out how the relative increases in prices would affect their expenditure and weighing them according?

Mr. OGBURN. Yes; we had that experience.

Mr. LAUCK. Will you then please explain the general increase in cost of living since 1914, pointing out the increases there from your own information, or using the data referred to?

Mr. OGBURN. Yes—

Mr. WARREN. May I suggest one question before you go into that?

Mr. OGBURN. Yes.

Mr. WARREN. When you determined the budget did you determine it some years ago or since the period of higher wages? These 30,000 budgets that Dr. Meeker refers to, for instance, were collected when?

Mr. OGBURN. The 30,00 budgets to which he referred were collected in a study made in 1901, prior to the—

Commissioner MEEKER. No; they were the latest figures we obtained in 1918.

Mr. OGBURN. Yes.

Mr. LAUCK. You had the 25,000 and some families in 1901 as I understand it, and then during the war Dr. Meeker made a special study of families in the shipyards and in 160 other cities, and by studying the relative weights, and so on, arrived at the weights which should be given to different articles, not basing it on the present high expenditures entirely, but working as near as could be to the normal weights, did he not?

Mr. OGBURN. These weights fluctuated somewhat in this way: It is quite possible that rents as a weight may be less than they were in 1901, however, due to the fact that rents have not risen as much as other articles. Clothing, on the other hand, would be a great deal higher, and particularly furniture, as that has gone up somewhat. Fuel and light would be somewhat diminished as a weight, but that would be a change which would be noted over that period.

And in regard to the increased cost of living as worked out in this way, the most noticeable thing is that the increased cost of living expressed itself most noticeably about the late summer or early fall of 1915. There has been—indeed prior to that time; that is, since 1914—a slight increase in the cost of living, but probably not very much. If a curve is plotted it runs just a slight rise, hardly perceptible, except perhaps for certain articles. Food increased a little. But the marked increase in the cost of living began in the late summer of 1915.

The CHAIRMAN. Do you mean to say during the depression in 1914 there was a slight increase in the cost of living?

Mr. OGBURN. I said since we went into the war, in 1914, there was a slight increase up to the late summer of 1915, when it began to move up at a fairly sharp angle, and it continued to rise with a fair degree of steadiness in the slope of the line until around the point of the armistice. It rose probably a little less than 2 per cent a month, one might think of it; of course, there is some little question how best to compute those things, because it involves interpolation, if you get it down to months; but as a general understanding, it was about that rate.

After the signing of the armistice, the course of the cost of living has been—we have not so very many total prices of all com-

modities by which to measure it, but by using wholesale figures and prices of food and the studies we have, we are inclined to think there is a slight drop in the cost of living following the armistice until about March or April of this spring. And it seemed, then, to move up slightly until, perhaps, in June it was a little bit more, perhaps, than it was in December or at the period of the armistice. Just what the trend in the cost of living has been since June of this year, certain judgments can be made, although there have been no general large studies made since that time by the Bureau of Labor Statistics. But since June until the middle of September food has risen from, I believe, an index number of 180 or 181 to an index number of 192, which is an increase of around 8 per cent in food. There is an index number, I should state, published monthly as to food, so we can keep tab on the increased cost of living rather easily by that figure. The wholesale price indexed shows something of a trend also of the prices, although it fluctuates somewhat more widely than the retail figure. The wholesale index number of the United States Bureau of Labor Statistics was 207 in June and in July was, I believe, about 217; and they tell me now that for August it is 226. I think those are the figures which the Bureau of Labor Statistics gave me to-day. So that, in so far as the wholesale prices go and the retail food prices go, it looks as if, up to the beginning of September or the late summer of this year, there has been quite an increased jump in the cost of living, so conspicuous as to make it comparable with the sums which occurred during the war period; so we should have to add on, therefore, something since June, which was the period of the last general cost-of-living survey, in regard to the figures as a whole; and you will probably be interested in knowing what the numbers are. They are made by localities, and usually tabulated according to cities. We began it first by using the shipbuilding centers, and then extended over to a very large number of cities, small cities and cities in which, indeed, there were no war activities.

And it seems that up to June in the shipbuilding centers the cost of living has risen about 80 per cent over the prewar period, say 1914. And for the large number of cities, including a great many smaller cities where, particularly, there was not any marked increase of war activities, shipbuilding and munition making, the increase was somewhat less. We will say—I believe the figures in the exhibit here are exactly 70 per cent. And when the two are thrown together—the populations, I believe, are about the same in each of them—they will show an increase up to June of about 75 per cent over the prewar period.

This is, therefore, simply an average of the detail studies by localities made by the Bureau of Labor Statistics, and I think would be the best single number, if you wanted a number.

These figures have been worked—I worked them up, not splitting them apart this way, and then they have been worked up in an exhibit which Mr. Lauck is introducing here, and they are found, I believe, on the first page of the pamphlet called "Changes in the Cost of Living."

I notice that in this pamphlet they figure the increased cost since June up to August, they say, based on incomplete data, and they

figure the increase has been about three points, or probably 2 per cent, which I think I would say offhand would be a conservative figure. I mean, I would be inclined to guess that probably the cost of living may have risen up until the 1st of September a little bit more than that. I think the figures in the pamphlet since the 1st of June are fairly conservative figures; that probably it is quite conceivable that the cost of living may have increased more than is listed here, although we have not, of course, the detail study upon which to base the result.

Mr. LAUCK. If you will refer to page 12, I would like to have your opinion as to how this figure was arrived at by the bureau which prepared this. You will notice, on page 12, up to June the cost of living for 18 shipbuilding centers over June, 1914, was relatively 80 per cent increased. Then in other cities outside of shipbuilding centers, which of course were more or less congested and marked by marked conditions, it was 170 per cent. Then the conference board practically goes, if I recall it, to about 73 per cent, or something about that. Anyhow it was considered fair to strike a mean between the abnormal and the normal at 175 per cent, and this was borne out by all the data which could be secured. In other words, taking the country as a whole, irrespective of localities, say that it increased approximately about 76 per cent up to June and 80 or 78 per cent up to September. Does that seem a fair method to you and a conservative method?

Mr. OGBURN. Well, yes. I should think that the combination of these two extremes of prices here would depend to a certain extent upon the population area they represent, and I understand these larger cities—the shipbuilding and abnormal areas, as you speak of them—represent a population about equal to the other cities; which would seem to justify our taking the simple average.

Mr. LAUCK. Yes; they represent a population of about 20,000,000, if I recall.

Mr. OGBURN. Yes. There may be some particular interest to the commission in the increase in the relative commodities of a family budget. This has been worked out and is found on page 16 of the pamphlet which you hold in your hand.

In Table 5 for the shipbuilding centers, one gets a fair relative idea, with perhaps a slight exaggeration, of the rent figure, food having increased 71 per cent, clothing a good deal more, 128 per cent—that is, 128 per cent over 1914; housing, about 17 per cent; fuel and light, about 45 per cent; furniture and furnishings, most of all—130 per cent; and miscellaneous items, 71 per cent. So that you can see that the various elements going to make up a household budget have varied somewhat in their relative increase. I should say, on the whole, that the variation as between cities is somewhat less in the matter of food and clothing and is somewhat greater in the matter of rent. Cities will vary more in that matter, and there is also some variation in the cities as regards fuel and light, particularly of light.

Mr. LAUCK. You can get a differential between cities, if anyone was interested, by working out these differences, could you not?

Mr. OGBURN. Yes; a sufficiently large number of cities are listed by the Bureau of Labor Statistics to make this figure applicable to

almost any particular locality desired. The reason of making this so extended was particularly due to the needs of the War Labor Board, I may say, where adjustments were made in various localities and it seemed desirable to have particular localities studied; and therefore we have a rather wide list of them.

The CHAIRMAN. What would happen to that third column—the housing—if you had the Washington rents in there?

Mr. OGBURN. Well—

Commissioner MEEKER. We may have obtained the Washington rents so far as they are obtainable; they show very small increases. The increases are in the future.

Mr. LAUCK. The general increase has been about 76 per cent, would you say, up to June, and about 78 per cent, conservatively speaking, up to September?

Mr. OGBURN. Yes; I usually think of it as between 75 and 80 per cent. It is questionable whether you can figure it to the exact fraction of a per cent, but I would say for the country as a whole from 75 to 80 per cent would be a fairly scientific estimate of the increase.

Commissioner GADSDEN. From June, 1914?

Mr. OGBURN. Well, yes. Of course, the average of 1914 or the close of 1914.

Commissioner GADSDEN. I mean the close of 1914.

Mr. OGBURN. From the prewar period; yes.

Mr. LAUCK. If the commission does not wish to ask any questions as to the cost of living, I will now ask Mr. Ogburn to take up the exhibit on standards of living, unless you have something further to say. We simply wanted to establish the general increase in the cost of living.

Mr. WARREN. Before you go to that, I just want to know if he has explained how he makes up his budget, or is he going to do that later?

Mr. LAUCK. I think you had better ask him now.

Mr. WARREN. I wondered what weight he gave to the different items appearing in the budget. Does that appear in the pamphlet?

Mr. OGBURN. No; it does not. The weights were varied from city to city—just a little variation; but food, on the whole, would run around 42 to 43 per cent, rents, perhaps 17 or 18 per cent, clothing was 15 per cent, fuel and light 5 or 6 per cent, and the miscellaneous was 20 per cent.

There would be a slight variation. The weights were varied for each city, but they would be approximately as indicated. Those weights are found in the Labor Review, and I could dig them up for you very easily.

Mr. WARREN. On the miscellaneous, did you go into the various items there?

Mr. OGBURN. Yes.

Mr. WARREN. For instance, street-car fares; how much weight was given to that?

Mr. OGBURN. I have forgotten exactly what the weight was for street-car fares, but I think the amounts spent for street car-fares for a workingman's family would vary, say, in between \$30 and \$60—somewhere in between there.

Mr. WARREN. But you did not figure it in per cent?

Mr. OGBURN. Yes. If you put your weights on the basis of dollars. If you figure that as a per cent of the total budget it would be simply dividing \$1,500, the total budget, by \$45, say, as the amount spent for street car fare.

Mr. WARREN. That is what you took as your base in getting the per cent on the other articles, \$1,500?

Mr. OGBURN. Yes. Well, it was, say, around that figure. That would vary from city to city, too; but that was determined by the actual income which the Bureau of Labor Statistics found in the particular cities, where they collected the budgets, but it would be around—maybe a little higher than that—somewhat higher.

Mr. WARREN. Based on actual experience, Dr. Ogburn, and not on any hypothetical basis?

Mr. OGBURN. Yes. In regard to the question of the standard of living, it has been my custom in connection with the wage adjustments of the War Labor Board to think of the cost of living in quite two separate categories—one being the category of the increase or decrease, as the case may be, in the cost of living, and that was oftentimes used by the board in adjusting the increases. However, in some cases it was claimed by parties in dispute or in the arbitration that it would be unfair to adjust wages by the amount in the increased cost of living, although that might be measured fairly satisfactorily, for the reason that in the prewar period the living as enjoyed by the workingman's family was inadequate. That was met in a number of disputes and is claimed by the working people quite frequently.

Well, you see, if that point is raised, it would seem that the satisfactory way to meet that is to make some study as to what is an adequate standard of living. That brings up a question therefore of a study of levels, or standards, of living irrespective of any increases—just a static concept of how much does it take to live.

Now, that question is, of course, one of immense difficulty in determining. It is one, however, which students in economic and social sciences have been engaged in studying for a number of years.

In studying the question of the standard of living they have focused their attention, I should say, rather largely on what might be called a minimum-subsistence level, or a bare-subsistence level, as it is sometimes spoken of. You can very readily see that there will be various levels of living according to the income which a family enjoys. And so one might conceivably study a level at any particular point in the scale. But attention has been focused, I should say, most upon what is called a bare-subsistence level.

The idea originated a number of years ago on the part of social reformers and statesmen who were interested in what they called setting a minimum. You find, for instance, in the United States that a good many States have set minimum wages in regard to the living of an unmarried woman; and you will find in some of the European countries, and particularly Australia and New Zealand, that the States have set a minimum standard of living for a family, as well as for an unmarried woman.

These minimum ideas have been considered quite a little by charity organization societies and relief agencies in our larger cities, settlement-house workers, and so on. The idea seems to be spreading, and

according to prediction, I would think bids fair to become quite an important point in our national policy. The British labor movement seems to be very much concerned with this same idea, which they phrase as a "national minimum," and the platform of their party states it this way: "That there shall be a line drawn across society below which no family shall be permitted to live." The idea, as we express it in America, is sometimes phrased this way: "That the minimum standard of living, or the minimum-bare-subsistence level, is a level below which when wage earners fall in a particular industry, that industry is said to be parasitic;" that is to say, the theory or policy of the minimum wage is that the States should not permit an industry to pay less than a living wage. I mean to say, if it goes into effect, that they should not permit an industry to pay a less than living wage. That has gone into effect so far as unmarried women go, but that is the theory, that the State would be justified in using its authority as a State in forcing an industry to pay these wages or force it to desist. As I say, they have not by use of the State authority applied it to the United States to families.

That is the general position by which the minimum wage concept comes into our political and social life. Now, a great deal would naturally center around the question of the measurement of this point. That is to say, how can you determine what this point is? Naturally, minimum-wage legislation and studies will be successful to the extent that they are able to scientifically determine a point or a standard; and by a point or a standard I mean to set some point in which there is some scientific validity. For instance, one might state that the temperature of a room should be kept at 78° in the winter. One would think of that 78° therefore as being accepted. It is quite conceivable that there might be some individuals who might thrive better when the temperature is less than 78° and others who might require more; but there is sufficient evidence, we might say, from physiology to justify this particular figure of 78. Well, that is the dream or hope which students of this question of minimum wages have. They want to set a point which will be somewhat similar to this temperature figure which would be considered as a standard.

Now, the question is, How do they measure it; how can they say that one thing is a standard or one particular point is a standard? Well, the approach centers around the question of what you call subsistence. And it is a subsistence of a family.

Now, there are a good many indexes of what you would call subsistence. One very important standard of subsistence for the family would be measured—that is, one index would be the infant mortality. You can very readily see how that would be a measure of the subsistence of a family, because if infants die rapidly or frequently one might therefore say that a family is not existing at that particular point.

Now, in regard to that one concept as a test of a minimum wage, there have been a number of studies made particularly by the Children's Bureau Department of the Bureau of Labor here in Washington. Their first study of this sort was in Johnstown, Pa., where they showed—this was in the prewar period—that where the father earned \$10 a week or less the infant death rate was 256; and by in-

fant death rate they mean the number of infants out of a thousand who die before they get to be 1 year old. In other words, that is, one in every four die. On the other hand, they found, where the father earned \$25 a week or more, that the death rate for infants was 84. And they have since extended these studies to some 8 or 10 cities, I believe, and they find in general that where the father earned in these prewar days, say \$1,250, which is equivalent to-day to about \$2,200, the death rate is about 65 out of 1,000 for infants the first year; whereas, when the father earns, say \$550, which is equivalent to \$950 now, more or less, that as many as 150 will die before they reach the first year.

I was talking to a young woman working in the Children's Bureau the other day who was working on this point of trying to plot on a curve this infant death rate; and she had figures which led her to think that the infant death rate would decrease at a certain point and then go straight. For instance, if you can get a curve running up like that and then breaking, that point right there would be a good index of the subsistence level. This study has not been finished on account of the fact that for the higher incomes there is not sufficient data gathered from these cities to make a sufficient number of studies to get a stable index number, but that, I think, gives you one idea of the subsistence level, and these infantile death rates are the things which help one to determine a particular point.

Another standard which one has in mind in setting a bare-subsistence level centers around the question of nutrition. There have been a good many studies made in the schools of our cities on the question of nutrition, and a particularly noteworthy one, on a rather large scale, was the one made a few years ago in New York City where they estimated 20 per cent, I believe, basing it on 100,000 children who suffered from malnutrition. That is about 1 in 5. Of course, it is not claimed by students of malnutrition that malnutrition is the economic basis or minimum, because it is quite conceivable it may be hereditary, or there may be psychological factors; but, on the other hand, it is admitted that there is quite a large factor in malnutrition.

The CHAIRMAN. Have those figures as to nutrition in New York been disputed?

Mr. OGBURN. I do not think they have; at least I am not familiar with it. I notice that in a recent pamphlet put out by the Children's Bureau those are the ones chosen, I believe, as most representative, or as they are the oldest citations. I think there is considerable dispute as to what is the cause of malnutrition, but I think the fact is that there are a large number of children suffering from malnutrition in that city.

Another point which helps us locate the level of living has been suggested by the experience in drafting men for the United States Army. In the draft of men between 21 and 31, which was supposed to be one of the healthiest periods of life, at least as measured by the death rates—the death rates are, perhaps, the lowest at that time—in the Provost Marshal's general report he shows that for the United States as a whole, only 70 out of every 100 chosen were accepted as qualified physically for general military duty.

So, if 30 out of 100, or 3 out of 10, are rejected, it is certainly a matter for consideration. It seems to me in the study of this theory of a minimum wage that that has a bearing.

You may ask what bearing this elimination from the draft has on the minimum subsistence. It is associated with the same economic cause. As I say, the economic cause would not account for all disbarments on the draft, because of various physical ailments which may not be due to economic causes. On the other hand, however, a very large number of them, perhaps one-half, may be said to be attributable to economic causes. That is to say, that if the economic welfare were somewhat improved these would not exist.

Commissioner GADSDEN. Do you suppose that, on that particular item, they analyzed the rejections to find out what percentage of them came from the class of people who were likely to be suffering from want of sufficient nutrition? Did they go far enough to do that?

Mr. OGBURN. I do not believe they could do that. I do not think they took any statistics of that kind.

Commissioner GADSDEN. I should think that would be a very unreliable generalization.

Mr. OGBURN. I do not believe that in examining men for the draft they did that.

Commissioner GADSDEN. I do not, either.

Mr. OGBURN. The only classification which they made which seemed to be especially significant was the classification as between the city and the country. I believe, if I am correct, that there were about one-quarter more rejections from the city than there were from the rural districts; and that has a possible bearing upon the nutrition question, I think.

I think that that point is considered, or at least it was suggested, I am told, by Lloyd-George, who is reported as having made the remark that if they had had a better minimum wage in England they would have had 1,000,000 more men with which to defend the country. So that I should say that would be another thing that would help to delineate this point of what we call the standard of living.

Another thing that is, to a certain extent, associated with it, is what you might call housing conditions. Housing has a good deal to do with health, particularly in questions of overcrowding; and the Children's Bureau has made certain studies of housing in regard to rents.

I have made a note of some of these here which I can quote. I do not hold them right in mind at the present time, but I remember one study which the Children's Bureau made before the war, in Manchester, N. H., in which they showed that, where the rent of a house was \$7.50, in this prewar period, the death rate of infants was 211; when the rent was \$7.50 to \$12.50—this is, per month—the infant death rate was 172 per thousand; and when the rent was \$12.50 to \$13.50, the death rate of infants was 156; and where it was \$17.50 and over, the death rate was approximately 1 in 10, or 100 to the thousand.

Thus, you see that there seems to be in this study a correlation between the amount of rent paid and the infantile death rate. It drops like this: 211, 172, 156 and 100.

They made some studies as regards the number of persons per room. For instance, when there was less than one person per room in this particular town, they found the death rate of infants to be 123 per thousand; where the number of persons per room was between one and two, the death rate for infants moved up to 177, and where there were over two persons to the room the death rate went up to 262.

There is just one other point on that I might speak of in connection with the question of what are the criteria for determining this particular level of living, and that centers around the question of food. I referred indirectly to it in speaking of malnutrition a while ago; but a diet is considered to be a highly important factor in maintaining a general well-being. Of course, it is essential in what we call existence. The most convenient and common index of the diet value is an energy unit called the calorie. In other words, to keep the human machine going, it has to be fed fuel, just as an engine will have to be fed coal to make the machinery turn around; and this food generates these fuel units called calories.

The question arises, What should be the supply of this energy value to a man?

It has usually been set for a man at moderately hard muscular work as being 3,500 calories per man per day. This is the standard, I believe, set by Atwater, and it is the standard employed, I think, by the Department of Agriculture of the United States Government.

In that connection, I should like to say something in regard to what the Nation considered was the necessary fuel value for a man in the training camps.

There have been a good many figures quoted as to the rations of food, but the actual rations of food are shown to be somewhat unreliable as figures, because there was considerable waste in the matter.

So a special study was made of the camps in the United States where the soldiers were in training, and these experts measured over a period of a week's time, I believe, the actual amount of food actually consumed; that is, going into the mouth and into the system.

As a result of this study, which has been recently published in the Journal of Public Health, it was shown that during the winter months 3,900 calories were actually consumed by the soldier in training in the camps, and I think in the summer time it was somewhat less, perhaps about 200 calories less, making 3,700.

I think, therefore, one may be justified in saying, insofar as the life of the soldier goes, perhaps 3,700 to 3,900 calories would be a good figure.

There has been recently a reaction somewhat against the calorie standard on this theory: That while food is a source of energy, that is not necessarily the full value of food. Food has other values, other than furnishing energy. It has a certain repair value. When tissues are burned up, through muscular use, food replenishes those tissues. This replenishment of the tissues requires proteins and requires various chemicals, particularly phosphates; and blood is supposed to require iron. There is also a good deal of calcium needed for the bones. So that one thinks, therefore, of a well-balanced diet as perhaps having from 80 to 100 grams of protein, perhaps 100 to 125 grams of fat, perhaps 450 to 500 grams of carbohydrates, 0.7 of a gram of calcium, perhaps about 0.015 of a gram

of iron, and, say, 1.3 grams of phosphate, certain proportions of ash, and so on.

They get these out of various foods. All of these chemicals and minerals are not to be found in any one food, but in various ones.

There are also certain other undetermined chemical constituents which we know a man needs, but which have not yet been ascertained.

Suffice it to say, however, that the general rule or method which they apply is that when a diet for a man contains 3,500 calories a day, it is, on the average, an adequately balanced diet, necessarily so; and one could conceivably get a proper balance of these chemicals without having 3,500 calories; but I imagine a domestic expert, a home-economics expert, could balance up a dietary properly with less than 3,500, but the ordinary housewife, not particularly trained in these matters, would probably, on the average, not get an adequately balanced dietary unless she computed it on a basis sufficiently liberal to furnish 3,500 calories per man per day.

In this study which the Bureau of Labor Statistics has made they went to considerable pains to get good food figures, and they went to a large cost to get these things analyzed, and this is a point which I am about to mention now, which I think is very important in coming to this question of a satisfactory living standard.

The bureau took about 300 dietaries, which yielded 3,500 calories per man per day; that is, they analyzed these dietaries, and then they added up the price of them themselves for the year 1918 approximately.

They found that in 1918 for a family of 3.35 adult male, his wife, and children—children being split up in fractions, according to the amount they consumed—that \$575 was required to purchase for this size family.

Food has probably increased since that time about 15 per cent, which would bring the cost of 3,500 calories for this size family up to about \$650 or \$660.

This particular unit of 3.35 is somewhat smaller than the unit customarily used by students for measuring the family. They come nearer using one of 3.8 or 3.9. If you bring it up to that figure, it will bring the cost of an adequate dietary up then as found in, say, 12 cities scattered in representative sections of the United States, to between \$700 and \$750 at the present time; and I think that is a figure which is very much worth while considering because of the big importance which food bears in the budget, and which the other items bear in their relation to food.

I believe the commission is fairly fortunate in being able to get a figure like this, because if this study had not been made it is very questionable whether you could have had any such good or accurate figure as this one. I therefore set a good deal of stock by this particular point, that it will take, on the average, for the United States, in these cities, from \$700 to \$750 for a man, his wife, and three children of the conventional age stated.

Mr. LAUCK. That is just for food?

Mr. OGBURN. That is just for food.

Mr. LAUCK. And food is about what proportion of the total family expenditure?

Mr. OGBURN. At the minimum level of bare subsistence it has been supposed to center around, well, from 30 to 45 per cent. If it were 50 per cent then the budget would be \$1,500, and if it were more than 50 per cent it would run up to, say, \$1,600 or \$1,700.

Mr. LAUCK. That would be on the bare-subsistence budget?

Mr. OGBURN. Yes.

Mr. LAUCK. Your conclusion from that would be, if I may interrupt you for a moment, that to cover adequately just the physical needs of a man with an average family he would require from \$700 to \$775 for food alone, which would represent, if he had relative proportions in other directions, an income of from \$1,500 to \$1,700? You might say it would be necessary for him to earn that to maintain a subsistence standard of living?

Mr. OGBURN. Computed by that one index; yes.

Mr. LAUCK. Just to cover food, shelter, and clothing?

Mr. OGBURN. Yes; that has been one of the ways by which they have measured it.

I have used three or four other different ways by which to measure it, but using that one you would come to somewhat the conclusion stated.

Commissioner SWEET. Do the others bring about somewhat that same result?

Mr. OGBURN. Yes. I worked on this for the National War Labor Board in June, 1918, to some extent, and I used about four or five different methods. At that time I set the bare subsistence at about \$1,380 and some odd—between \$1,350 and \$1,400 at that time—and I did it by using this food quotation, this method.

Then I took three budgets, which are somewhat well recognized and which authorities have accepted. I took Prof. Chapin's budget, made in New York in 1907, a very careful study. I took the New York Board of Estimate budget, drawn up by the city government for its own employees, and I took a budget made by the New York Factory Investigating Commission, a legislative commission. I took each of those budgets, and considering the increases in the cost of living, brought them up to date, so to speak, and, with the exception of one, they came to between \$1,450 and \$1,500. The New York Factory Investigating Commission came to \$1,320 and some odd dollars, but that budget was considerably inadequate in some of the sundries or miscellaneous items. It left out a good many things which a family would have to have in order to live.

So that I came to the conclusion at that time that what I would call a fair subsistence, which would be really a bare physical subsistence—and it would be very conservative; it would not be an exaggeration at all—would, at that time, run between \$1,350 and \$1,400, judged by these four or five different standards.

The CHAIRMAN. What is included in your item, "bare subsistence?" What general factors?

Mr. OGBURN. What were the other items of the budget?

The CHAIRMAN. For bare subsistence.

Mr. LAUCK. If I may interrupt, on page 8 of the standard of living that budget is reproduced.

Commissioner SWEET. It covers house rent, clothing, and so on?

The CHAIRMAN. Yes.

Mr. OGBURN. Yes; fuel, rent, a little saving, and so on.

Mr. LAUCK. On page 8 you will find the different items.

Mr. WARREN. Did you say what date that was?

Mr. OGBURN. June, 1918. That budget I find drawn up on page 8.

Commissioner SWEET. Does that allow anything for street-car fares and matters like that?

Mr. OGBURN. Yes.

Commissioner GADSDEN. \$40.

Mr. OGBURN. I put down a fairly liberal estimate for street-car fares; probably a little more than the average spent.

Commissioner SWEET. And schoolbooks?

Mr. OGBURN. Yes; I put down something for that. Of course, that will vary in different cities. There are some cities that furnish schoolbooks free, and there are others that do not.

I may say to you that this budget which, as I say, was drawn up in the summer of 1918, in June—when I drew this up, I had the benefit, of course, of certain studies of workingmen's families; I had the benefit of the Bureau of Labor Statistics studies in shipbuilding centers.

Since that time—that is just about a month ago—I have taken the recent results made in 1918, actually, by the Bureau of Labor Statistics, and I have tabulated what a family with an income of approximately \$150 spent, as based upon those recent studies, and it coincided with really surprising accuracy to the budget which I have set forth here. There were some differences. I had put down a little larger item for food than they actually consumed.

You understand when you set a standard budget, you do not necessarily make it an actual budget. I therefore allowed a little bit more for food than they spent, and I allowed a little bit more for medicine, sickness, than was actually spent, and a little bit more for car fare than was actually spent by the family in 1918.

Commissioner MEEKER. You mean families that had an expenditure of approximately \$1,350?

Mr. OGDEN. Yes.

Commissioner MEEKER. That consisted of husband, wife, and three children?

Mr. OGBURN. Yes.

Commissioner MEEKER. Of 2, 5, and 11 years?

Mr. OGBURN. Yes. But the fact that your figures, actually collected in 1918, correspond with the exception of those few points fairly closely lends considerable confidence to this particular budget as a standard budget.

The CHAIRMAN. You are a little bit short on religion and laundry, are you not?

Mr. OGBURN. I think, as a matter of fact, I may be a little generous on religion, as compared with the actual figures spent.

Commissioner GADSDEN. I do not see why you combined fuel and light on this. I think most of that is fuel, not light.

Mr. OGBURN. It is almost impossible to separate those. They will burn gas for light and they will burn gas for cooking. And you can not tell how much gas they use for light and how much they use for cooking. We would like to separate it but it is hardly practicable to do it.

Commissioner GADSDEN. I was thinking of coal that they use in the northern climates. They do not use much gas for cooking. They heat the house by coal.

Mr. OGBURN. Then in that connection the point might be raised as to how much of the coal was used for heating and how much was used for cooking. They warm themselves around the cooking stove. It is almost impossible to separate those items.

Mr. WARREN. Street-car fares are rather less than 3 per cent of the total—on page 8?

Mr. OGBURN. Yes.

Mr. WARREN. As I understood you, that is rather more than you found the actual expenditures to be?

Mr. OGBURN. I think the average street-car fare as given here may be a little high for what was actually spent on the average.

Mr. LAUCK. That covers, does it, just the head of the family going to and returning from work, and possibly one of the children going to school, or something like that?

Mr. OGBURN. Yes. That is a low level. That is what we call a car fare at a low level.

Mr. LAUCK. This budget in June, 1918—this represents a bare level of physical existence, you say—the cost of living has increased about 12 per cent since that time, has it not, or more than that—since June, 1918?

Mr. OGBURN. Yes. It has increased just about that figure.

Mr. LAUCK. Then that would amount to \$166; and adding that to the \$1,386 would require an outlay of \$1,552 on the basis of your estimate there at the present time to maintain a subsistence level?

Mr. OGBURN. Yes; I think you can pretty well substantiate to-day the fact that it will take between \$1,550 and \$1,600 to maintain the bare subsistence level to-day. I believe so.

I may say that there was a recent study made—I think I am permitted to quote this study—by the Bureau of Municipal Research in Philadelphia. The study is to be published by MacMillan & Co. While it is not out of press yet, I have had the manuscript and have been authorized by them to quote their figures, and their figure runs around \$1,600. I think their budget allowance was perhaps a little bit more liberal than mine here.

Mr. LAUCK. That is bare physical subsistence?

Mr. OGBURN. Yes.

Mr. LAUCK. What is the next level about that? What do you call that?

Mr. OGBURN. I think that perhaps I ought to say I have always found some confusion when I speak about budgets, unless it is borne in mind that there may be, conceivably, various levels of budgets. I mention this one, because most of the work has been done it; but there are, I think—and it must be borne in mind—various other levels.

I think of one level being under this which is customarily called the "pauper level," and another term is the "charity level." These are two different levels—the charity level being inadequate in sundries, and the pauper level where one gets in debt, and so forth.

There have been levels differentiated above this level here which have been variously called—the first one that I knew about, or one

of the most important was drawn up by the faculty of economics and sociology of the University of Washington and accepted by the Seattle Street Railway Arbitration Commission, that was then sitting on a strike, and this was drawn up and called, at that time, a minimum-comfort budget.

Mr. LAUCK. If I may interrupt again—that is on page 30, I think.

Mr. OGBURN. In this pamphlet.

Mr. LAUCK. Yes.

Mr. OGBURN. That particular budget was drawn up in 1917 and is found on page 30, and comes to about \$1,500 at that time. That is a budget which is somewhat above what we call the bare-subsistence level.

Since that budget was drawn up and discussed there have been various other individuals who have drawn up this budget and discussed it at this level, particularly Jessica Piexotto, an authority on this matter, and at the University of California a study of a level somewhat above this.

The fact that there seems to be considerable pressure for delineation and description of a level above what we call the bare-subsistence level led me to work on this thing in the summer, June, 1918, and I drew up a budget for the War Labor Board which I called the minimum-comfort budget, which at that time came to about \$1,700, or a little more.

Mr. LAUCK. You used that in the Packers' case, did you not?

Mr. OGBURN. Yes; I introduced that budget.

Mr. LAUCK. We have a reproduction of it, or the bureau has, rather. It is at page 13.

Mr. WARREN. That was the summer of 1918?

Mr. OGBURN. 1918.

Mr. WARREN. The summer of 1918?

Mr. OGBURN. June.

Mr. LAUCK. Will you explain that budget, Prof. Ogburn?

Mr. OGBURN. This budget which we are now discussing is supposed to delineate a level above what we call the minimum subsistence, and is variously called the minimum health and decency, or the minimum comfort, or the minimum health and comfort. I shall refer to it as the minimum comfort budget. It is somewhat more liberal in food, although the food in the two budgets does not vary so very much. The rent figure is somewhat more liberal. I particularly set down there a larger item for insurance and savings. That figure of insurance and savings is one very debatable as to what should be set down. I have set down a health figure nearly the same as in the minimum budget. I have given somewhat more in clothing, because it does seem to me that comfort, social position, and so on, center around rent and clothing.

The CHAIRMAN. Is it convenient to you to stop at this time, Professor?

Mr. OGBURN. Yes.

The CHAIRMAN. And we will convene again at 8 o'clock to-night.

(Whereupon, at 5 o'clock p. m., a recess was taken until 8 o'clock p. m.)

EVENING SESSION.

STATEMENT OF MR. WILLIAM F. OGBURN—Continued.

Mr. LAUCK. Prof. Ogburn, I believe when you closed at the afternoon session you were just beginning to discuss a minimum-comfort wage, as you had prepared it for the War Labor Board, on page 13 of the Standards of Living.

Mr. OGBURN. Yes.

Mr. LAUCK. Would you explain that budget to the commission, for the reason that we expect to use that budget as the basis for our contention as to the principle of a living wage?

Mr. OGBURN. Yes. The theory of a minimum-comfort budget is not quite as clearly delineated as the theory of a bare-subsistence budget. But one, as I say, thinks of a minimum-comfort budget as being a living which all industries ought to pay their workingmen; at least, that is the theory of those who hold to the living-wage theory. Whereas the bare-subsistence budget does not necessarily imply that it is an adequate budget or that it is satisfactory to the labor people or that it is even necessarily wholly desirable in a democracy; whereas a budget that is somewhat more liberal I think comes nearer meeting an actuality.

Now, the minimum-comfort budget is, I think, not wholly a theoretical proposition. That is to say, it is a description of an actual situation, and the fact that it has been received and commented upon rather widely and the fact that there have been various individuals working at this particular level seems to indicate that there is a level which is in considerable demand above what you would call a bare-subsistence level.

Looking at that budget from the point of view of different items, in June of 1918, when I first drew up a minimum-comfort budget, I put down \$625 for food, which is a little bit more than the item for food in a bare-subsistence budget, although you can very readily see that the food item would be very nearly the same in the two budgets. Now, the food item I arrived at in this way—and that is the cornerstone of the work—I took four or five dietaries, worked out by different individuals, and priced them on the market at that time and—

The CHAIRMAN. What page are you referring to?

Mr. OGBURN. Page 13. One of these dietaries was worked out by Prof. Jaffa, who is professor of nutrition at the University of California.

Mr. LAUCK. That is on page 31, if you wish to refer to it.

Mr. OGBURN. Prof. Jaffa's statement is on page 31 of this particular pamphlet.

As I say, I took his budget and priced it on the market, and, in general, that is the food item which you see at the bottom of page 13. Now, at the same time I got the professor of domestic science of the University of Washington to work out a budget somewhat differently balanced and priced her budget, and it came to approximately the same figure. And then I had two or three other budgets which I also priced, and they all came very nearly to the same figure, which would seem to indicate or lend strength to this particular food item.

That is, the subsistence budget is somewhat more rigidly pared down for foods than this, although you see they are very nearly the same.

And in the matter of the clothing, which you see on pages 14 and 15, I was a little bit more generous in clothing there than in the bare-subsistence budget.

Mr. LAUCK. I was just going to ask you there—I thought you were very conservative in clothing. You have one man's overcoat, \$6.50.

Mr. OGBURN. That means, of course, he does not buy an overcoat for \$6.50, but that figure represented at that time an overcoat which would last three years at an average cost of about \$19.50. That was in June, 1918.

Mr. LAUCK. That is, he had one-third of an overcoat a year?

Mr. OGBURN. Yes. But, of course, you can look back to the prices, if you know very much in a general way about the prices a year and a half ago, and \$19.50 of course—it would take a little stretch to make a \$19.50 overcoat last over three years. And the sweater is \$2.50 there, which, of course, means that the sweater will last over a period of years. And a suit or uniform—I allowed one of those a year, and an extra pair of trousers at \$8.

Mr. LAUCK. That is, he would have one extra pair of trousers in addition to his suit?

Mr. OGBURN. Yes.

Mr. LAUCK. And he would have to work in that suit, would he not, according to your standard there, if he only had one suit a year, unless he was working in his last year's suit or something of that kind?

Mr. OGBURN. Yes.

Mr. LAUCK. I just wanted to point out that it seemed to me very conservative.

Mr. OGBURN. Yes; and the way they usually work this suit-and-uniform proposition is that they will buy one a year and then wear it until it wears out; but the average will probably run around that figure.

Mr. LAUCK. How was it in shoes? How many pairs of shoes did you allow each year for \$15? Is that two pairs of shoes?

Mr. OGBURN. Well, usually that item for shoes ran, I believe, for a pair of Oxford shoes, I believe once every two years, and about two pairs of shoes plus the repairs would just about make the \$15. That was about the allowance.

In regard to the details of the clothing and in regard to the clothing, I may say that I took the United States Bureau of Labor Statistics' study made during the year 1918, and we took families of five—a husband, wife, and three children—and computed them very accurately, just what is spent for clothing; and it dovetailed—that is to say, for a figure around \$1,700 or \$1,800, very closely, the details of this clothing budget which I have here. But I think that you can get a sort of idea of the amount of comfort. It does not take any particular technical training or understanding to look over this clothing budget and see that there is not any very great amount of comfort allowed, for instance, when a man spends \$92.50 a year and a woman \$87.

Mr. LAUCK. I was going to say the woman seems to be particularly conservative; just the most needful clothes and no clothes for

practical dress purposes, are there? I mean for anything except what would be comparatively needful?

Mr. OGBURN. Yes. In regard to women's clothing we find this usually: That the higher the income, the larger the ratio of cost of women's clothing to men's clothing. Where the income is extremely low, for instance—below what you would call a subsistence level—the wife in a workman's family will not be allowed to spend, say, more than half what the man spends. That is pretty generally found out. And on the other hand, when you get up near the minimum-subsistence level it will run up maybe three quarters, varying from place to place; and as the income rises above the minimum-comfort level and gets up to a point sometimes referred to as a reasonably adequate living, one finds that the woman's clothing costs the same as the man's, and as it gets beyond that, the woman's clothing goes up more and more.

Children's clothing very seldom shows any such fluctuation as that. Children seem to be looked after first and the woman really suffers the most, as she gets the most when the wage goes up; but you can see there the figure is somewhat under that of a man, which I think is about what you find at the so-called minimum-comfort stage.

Mr. LAUCK. A top coat for the wife, or the woman—that is, computed on the basis of an overcoat for the man, one-third a year and one new top coat every three years.

Mr. OGBURN. Yes; \$24.

Mr. LAUCK. And her suit?

Mr. OGBURN. One every two years.

Mr. LAUCK. That would be half a suit a year.

Mr. OGBURN. Half a suit a year.

Mr. LAUCK. So there is not anything excessive about that. I mean no display or extravagance, but a woman would get one new suit every two years and a new top coat every three years?

Mr. OGBURN. Yes.

Mr. LAUCK. Only what she would absolutely need, practically.

Mr. OGBURN. Yes. Of course, in regard to clothing, a workingman's family is often pretty hard on clothing, particularly when they are doing muscular work, etc.; it is particularly hard on underwear, of course, and really in so far as the number of garments go, I think a workingman's family really needs more perhaps than one in the middle classes would be inclined to think.

The items for some things—like gloves perhaps, and overalls, and so on, vary quite a little bit from group to group; and the item of \$6 for gloves there I think might be somewhat nearer the figure for street-car men's gloves; at least where I have investigated the street-car trades, they do seem to wear out a good many gloves. That would also be true, to a certain extent, of the packing industry; but it is hard to make a general average for the United States on details of that sort.

Commissioner MAHON. The motormen wear the gloves.

Mr. OGBURN. Well, there are a good many conductors that wear them, too; at least, where I investigated in Seattle there are quite a number of them.

I allowed in this minimum-comfort budget for the two younger children no sum for underwear and nightgowns, assuming that they would make over the underwear of the other members of the family and cut them down and make their garments. Some little sewing is therefore allowed in the budget.

Mr. LAUCK. May I ask you a question there, Prof. Ogburn?

Mr. OGBURN. Yes.

Mr. LAUCK. The clothing does not seem to be much above what would be the minimum requirements—that is, of a minimum subsistence. You were speaking a while ago of a minimum physical subsistence—the necessary food to sustain life and prevent underfeeding and undernourishment, etc., but this clothing would not be any more than the minimum of comfort, it seems to me. Is that correct?

Mr. OGBURN. Yes.

Mr. LAUCK. We might say it is the minimum of comfort, the minimum subsistence for properly clothing the members of the family. Could you indicate then where the difference is, principally, between this budget and the subsistence budget which you have spoken about? On the preceding page it gives the other item.

Mr. OGBURN. Yes. I would like to just preface that, Mr. Lauck—

Mr. LAUCK. Do not let me interrupt you.

Mr. OGBURN. By saying that there are various ways of making these budgets, but here is the way it seems to me the thing is approached: It is very hard to say, for instance, that for ties, collars, and handkerchiefs \$2 is necessary for subsistence, you see. I mean to say, when you get down to the detail of that sort you can see yourself that \$2 per year would not be very much in the way of ties, handkerchiefs, and collars.

The CHAIRMAN. \$2 for underwear would indicate they would only use it on Sundays and holidays.

Mr. OGBURN. Yes. And how can you say just exactly what point the thing has reached? Well, I figure in a good many of these details you can not say; that is, I have no scientific standard by which I can say that \$2 and only \$2 and just \$2 can be spent for ties, collars, and handkerchiefs; but what we do is this—we find out how much food there should be and we find what the medical costs should be and we find out something about what the rent figures should be, and we have therefore about four or five fairly good criteria that really indicate what the level should be. And then we take these criteria and find what the family will spend along those other lines when they spend just those sums on those particular criteria, and it so happens under these conditions they will spend so much for shoes, or so much for ties, collars, and handkerchiefs. In other words, there are certain criteria or guiding points or high lights which help us in determining these particular levels, and some of the other sundries or miscellaneous items are simply determined as the result of observation, set that way by these determining indices. I do not know whether I have made that clear or not; but it seems to me that is somewhat the way one goes about it, and that is the way, anyway, that we differentiate between these two budgets.

Commissioner MEEKER. You mean, do you, that the standard in the particular social sets, so to speak, in which the workingman dwells

prescribes certain expenditures for display—ties and collars and so on—and that is determined in the way that you have indicated?

Mr. OGBURN. Yes; but it is a little—

Commissioner MEEKER. In other words, there are other items which are capable of precisement.

Mr. OGBURN. Yes. You will find, for instance, that working families that are right down on the bare poverty line or even below the poverty line will do without food—that is to say, they will sacrifice their food and rent scale and physicians, and not get any medical assistance at a time when they need it, but at the same time they will buy certain pieces of furniture which you may not think are necessary, perhaps, or will take in certain amusements. Now, that might not be what some Puritanical-minded individual would think was a reasonable allotment for a budget; but you have to take human nature as you find it, and as a matter of fact, the more we study human nature and psychology, the more we find the care and treatment of instinctive life is as essential as the care of the nutritive life. If, for instance, you find them underfed or undercared for, so far as physicians go, and spending a certain amount for recreation, then you simply have to assume, since you are not having any all-wise Deity direct the expenditures of these families, that those things are a necessity, and what you have to do is to set the particular level where they get a reasonably adequate supply of food and medical attendance and then see what happens in regard to recreation or joining a lodge or whatever other these sundries may be; and whatever those sundries may be, these seem to be determined therefore by these particular indices. And that is about the way, as I told you, that I formed the average budget. They cut down really almost to the limit to get to the bare-subsistence budget. In order to get the minimum-comfort budget, I took four or five rather ordinary dietaries—such as one finds in practice, not particularly scientific—and I priced them and found they all came to about the same thing. That more or less determines the food level. But I know from other studies what the expenditures for sundries are when that much is spent for food, and that determines that particular level.

In regard to house rent, we have a good deal of information in regard to houses. We know as the result of the various studies about what you can get in the different cities for house rent; and one thinks of a fairly good 5-room house, we will say, with a bath in it as probably costing at this particular time when this budget was worked out a little less than \$20 a month.

The CHAIRMAN. Do you proceed upon the theory that all of these laboring people are renters?

Mr. OGBURN. Well, that brings up a question. We do assume that they are renters, although there may be a good many who will own a home. This will be particularly true in some of the far western cities and Texas cities and the smaller towns. But this budget is made out for families who rent. And that brings up a point, I may say, that most budgets are really set for something that you speak of as the average or the mode. There will be deviations from it of one sort or another, but if you ever do anything by way of wage legislation you have to do it by sort of an average, or mode.

Commissioner MEEKER. From an examination of our schedules, would you say expenditures for housing were less or greater on the

part of workingmen who own their own homes, or at least the title to mortgaged homes? Were their expenses more or less for housing than renters?

Mr. OGBURN. That is to say, what the house which they own would rent for if it were rented, or what they pay——

Commissioner MEEKER. No; so far as we gather the data, the actual expenses on the part of those who own their own houses, as they term it, as compared with the expenses for housing of those who rent them?

Mr. OGBURN. That is to say, payment of mortgage, taxes, etc.?

Commissioner MEEKER. Yes.

Mr. OGBURN. I did not look into that thoroughly, but in one of the western cities I looked into the bureau's figures; the expenses were somewhat greater where they owned their home than where they rented it—that is, for taxes and payment on the mortgage, etc.

Commissioner MEEKER. That is the point I wanted to make.

Commissioner WEHLE. Do you not find frequently that a man who has the title for his home is still paying for it?

Mr. OGBURN. Oh, yes; that is quite a common occurrence.

Commissioner WEHLE. Or that he has a mortgage on it?

Mr. OGBURN. Yes.

Commissioner WEHLE. And he has had to borrow money?

Mr. OGBURN. Yes.

Commissioner WEHLE. You say you have not had the opportunity to see whether there is an equivalent expenditure there or not?

Mr. OGBURN. Yes; state that question again.

Commissioner WEHLE. I say you have not had the opportunity to determine whether there is an equivalent expenditure on the average where a man owns his house, as Mr. Meeker has just said, and where he rents his house?

Mr. OGBURN. Yes; I say that in the one city where I had occasion to see the figures on the expenses for a man who owned his house they were somewhat greater than where he rented it, and I looked into quite a number of houses and what the houses which they owned, if rented, would bring in, which was a little more than others of the same class are renting for.

Commissioner MEEKER. Will it not be sufficient for the record to say that, in general, taking it by and large, the expenditures for housing on the part of workingmen who own their own homes are greater than the expenditures for housing on the part of workers who rent, and that is the universal experience of the bureau in its studies, and that does not include any payment on the mortgage of the house?

The CHAIRMAN. You mean just the interest on the investment and the repairs and taxes result in a larger item than the rental?

Commissioner MEEKER. It does. If there is a small expenditure, it is usually taken out by not attending to the upkeep. It is cheaper to rent than to own, and that is quite general.

Commissioner WEHLE. Dr. Meeker, in making your calculations in the Bureau of Statistics of the Department of Labor on the cost of owning your own home, do you figure as the chairman suggested, the interest on the investment as a part of the cost?

Commissioner MEEKER. Of course, that should enter.

Commissioner WEHLE. It has not been used ordinarily, has it, by the Bureau of Statistics?

Commissioner MEEKER. Yes; the investment is figured at the accepted rate of interest and, of course, payments upon the mortgage are not included in rental.

Commissioner WEHLE. You treat the workingman's home, then, in figuring what it costs him to live in his own house, in the same way you would figure the property investment of a railroad—that is, you take your interest as a fixed expenditure and the interest which the workingman would have, if he had invested his money in a security of some sort rather than in a home.

Commissioner MEEKER. As a matter of fact, we have made enough investigations so that in making up these budgets we chose houses which were rented, having assumed the fact that it is cheaper to rent than to own a home.

The CHAIRMAN. You may proceed, Prof. Ogburn.

Mr. OGBURN. In regard to the health item—that is, the amount spent for physicians, drugs, and dentists—the figure of \$60 was put down as the same in both cases, on the advice of Mr. Warren of the United States Public Health Service, who, in testimony before the War Labor Board, had a good deal to say in regard to the number of days' sickness which a workingman, on the average, suffers and the approximate amount which it should cost him, and he figured about \$60. And the figures of a workingman at this level, as collected by the Bureau of Labor Statistics, show a sum just a little bit under this. I think it will probably be nearer \$50 than \$60, but the figure there of \$60 is therefore more of a standard than an actual experience, although it is not very much above it.

I did put down in this budget \$150 for insurance and savings, which, I may say, is considerably larger than the families ever do save or put up even during the campaign of Liberty loans at this particular level. That is another departure from the actual budget and is a point in making the standard.

Commissioner MEEKER. Is that amount actually above the combined amount for insurance and savings at this level?

Mr. OGBURN. Yes.

Mr. LAUCK. What was your idea in doing that, Prof. Ogburn?

Mr. OGBURN. Perhaps I should have stated this, that what I was doing in these two cases was setting what I conceived to be a standard budget. The question often arises as to whether a standard budget is exactly the same as an actual budget. I figure that it ought to be very nearly the same as an actual budget and not too purely refined—that is to say, there is no question about the fact that humankind smokes, humankind drinks, and so on—that humankind expects certain expenditures for recreation. Therefore you can not leave these things out. You have to make it fairly approximate and close to the actual expenditure. But I have varied here and there—I have put a little bit more for food and a little bit more for sickness and savings—simply as it would seem to be the concept of what a standard budget should be.

Mr. LAUCK. A man at the subsistence level would be simply "getting by" every month, wouldn't he—if I may use a slang phrase to express it?

Mr. OGBURN. Yes.

Mr. LAUCK. Whereas if he had some chance to buy insurance he would protect his family against deaths and sickness and would make

some savings, which he ought to do, he would be providing for unforeseen contingencies which might arise—old age, sickness, something that would come up out of the usual. In other words, he would not be on an absolute ragged edge all the time, but would have a chance to bridge over these things?

Mr. OGBURN. Yes; in the bare subsistence I put down \$40 for insurance and savings, whereas I put in the minimum comfort \$150 for the insurance and savings. I think that perhaps my item for furnishings is a little low. It is very hard to get good figures on furniture and furnishings; there are so few families—you have to collect such a very large number of families before you can get accurate figures.

I have put down only \$50 for furniture and furnishings. As a matter of fact, families at this level, according to the Bureau of Labor Statistics, spend a little bit more than that for furniture and furnishings. I think that item is a little underestimated. It is certainly very little for furniture and furnishings, particularly at the price furniture is. They actually spend more than that.

Commissioner MEEKER. Prof. Ogburn, that item of \$50 for furnishings merely means the upkeep of the furniture?

Mr. OGBURN. Yes.

Commissioner MEEKER. It has nothing to do with the setting up of the family in housekeeping?

Mr. OGBURN. No; just the upkeep.

Commissioner MAHON. Keeping up the bedding and the—

Mr. OGBURN. Cooking utensils and the tools around the house, brooms—

Commissioner MAHON. Table cloths?

Mr. OGBURN. And table cloths.

Commissioner MAHON. How much do you make that?

Mr. OGBURN. Fifty dollars. In the minimum-comfort budget, as I say, I think that item is a little low. If I were making the budget over again, I think it should be raised.

Mr. LAUCK. What does education cover? The children going to school and the books and newspapers, and so forth?

Mr. OGBURN. Yes; I put down for newspapers, magazines, books, and children's expenses \$20, to cover that.

Commissioner WEHLE. Does that include car fare of children going to school?

Mr. OGBURN. No; that is not supposed to include the car fare.

Mr. LAUCK. That is a very conservative figure, is it not?

Commissioner WEHLE. Does your \$55 car fare include the car fare of the children?

Mr. OGBURN. It is intended to include going to and from work, and of the wife and the children.

The church item is put down at \$9, which is very near the figure which families of that particular income actually spend. Perhaps it may be a little bit more.

Mr. LAUCK. You have \$24 for church, labor, and other organizations, have you not? Nine dollars of that for church, and the other for labor-union dues and societies, and so forth?

Mr. OGBURN. Yes. I put down \$15 for organizations—labor and other organizations—\$15 a year.

Commissioner MAHON. That is too low.

Mr. OGBURN. This was in the summer of 1918. Probably it was very low then.

Mr. LAUCK. The comforts are very conservative, are they not, or very low—\$3 for tobacco, candy, Christmas gifts, and everything of that kind?

Mr. OGBURN. Yes; considering the fact that if you really look at human nature frankly, of course, that is very low; there is no question about that. I think that when you get into a question of the minimum-comfort budget—as the questions of Mr. Lauck have been headed in that direction—you really have to form the conception that there is still another budget level.

I mean to say that I do not believe that you could look at this budget and think of it as an adequate budget for working people. I mean to say, if you were to think as being—well, it is perfectly possible to conceive of another budget level where, if they had a telephone, or if they had a nurse occasionally, when someone was sick in the house or where they had a somewhat better type of housing, where they took more opportunities in education, and were able to send their children through the high school—we figure that only less than 10 per cent get through the high schools—I think you would have to conceive of a budget level as being above this.

The point I make is that this minimum budget is, strictly speaking, a minimum budget of a certain level and it is not necessarily designed or set as a maximum budget at all, or perhaps even what the working people would call, necessarily, an adequate budget. It is along the line of those minimum budgets.

Mr. LAUCK. It really seems to provide for food and clothing to keep them warm and, you might say, just removes the specter of want, or the possibility of want, from the door, does it?

Mr. OGBURN. That is the idea; yes.

Mr. LAUCK. That is, they have some slight hold on the future by savings and insurance; they are adequately clothed, so far as comfort is concerned, and fed properly?

Mr. OGBURN. Yes.

Mr. LAUCK. But beyond that there is nothing to waste or nothing to develop or expand on?

Mr. OGBURN. Yes. I would like to introduce one piece of evidence here bearing upon the point I am discussing, which I think is of considerable value in regard to food budgets.

What we did over at the Bureau of Labor Statistics was to take families of husband and wife and three children with specific incomes—say, \$2,000, \$1,800, \$1,600, \$1,400, \$1,200, and \$1,000, and we analyzed their dietaries, and took an average of all their foods which they ate and reduced it to a permanent basis, and analyzed it; and out of about 12 cities—Chicago, Providence, New York, Denver, St. Louis, San Francisco, Seattle, Boston, St. Paul, Minneapolis, New Orleans, and Atlanta—we found that as an average in those cities when the income is \$2,000—this is in 1918—the purchase of calories was 3,533; that is the actual number of calories purchased when the income was \$2,000.

Commissioner MEEKER. Will you explain that? That is that many calories per adult male?

Mr. OGBURN. That many calories per adult male; yes.

Commissioner SWEET. That was below what was actually needed then?

Mr. OGBURN. Not necessarily. It was probably a little bit above.

Commissioner SWEET. What was the figure? I thought you said—

Mr. OGBURN. This is 3,533.

Commissioner SWEET. Oh, I misunderstood your figure.

Mr. OGBURN. When the income is \$1,800, the actual number of calories purchased was 3,400.

At \$1,600 the number of calories purchased was 3,278 average; that is about, a little over 3,200.

At \$1,400 the calories purchased were 3,217.

When the income was \$1,200, for this size family, the calories purchased were 3,015—about 3,000 calories.

When the income was \$1,000 the food that they purchased yielded 2,935 calories.

Those, I think, are about as good figures as you will find anywhere in existence bearing upon the calories purchased according to income.

Therefore it is only when they get pay over \$1,600, and around \$1,800 or \$2,000 that they actually buy a sufficient number of calories.

The CHAIRMAN. Will the reduction of 500 calories mean that the family is undernourished?

Mr. OGBURN. In regard to that point, Mr. Chairman, I think that it is only fair to say that there is considerable variation in a family's needs. They figure that a man that is tall and heavy and young would need a good many more calories than a man who is short, slight, and older. There will be a considerable variation in that way. There is a certain variation according to occupation. They figure, if you are working as a logger in the Maine woods, you would probably need nearer 6,000 calories. On the other hand, if your work is quite light and indoors a good deal, you might, conceivably, not need in calories more than 2,500.

The CHAIRMAN. Apply that to your street-car employees. Would 3,000 calories sufficient nourish street-car employees?

Mr. OGBURN. I do not know of any particular studies of street-car employees as such; but I should be inclined to think that a street-car employee would be classed as moderately hard muscular work. Of course, I do not know; but I should be inclined to think they, perhaps, would need around 3,500 calories.

Mr. LAUCK. In those lower-income groups, after your purchase of calories, they have very little left to purchase anything else, have they not? I mean the percentage of the income absorbed by the purchase of food in the lower-income groups—\$1,000 and \$1,200—left very little over?

Mr. OGBURN. Yes.

Mr. LAUCK. You stated this afternoon that it would take about \$600 or \$700—\$775, I believe, was the figure—to purchase the needed number of calories; so that you would have very little left for clothing or housing, and then there would be overcrowding, or they would not be properly clothed, if they did get the calories needed?

Mr. OGBURN. Yes. If, at this time, the 3,500 calories would have cost about \$600, or a little over, out of \$1,000, there would only be \$400 left. But they do not do it that way. When they have only \$1,000 to spend, what they do is, they do not buy enough calories. They are not subsisting. They neglect themselves.

We have very good evidence on that, because we find that in these same 12 cities nearly 20 per cent—very nearly 20 per cent—of the families are consuming 2,500 calories or less. That seems to me to be rather a significant point, even granting that some of those 20 per cent are small; that is, some of the men may be small in stature and may not need very many calories, but when 3,500 calories is the desired number, there must be considerable underfeeding when they only consume 2,500. I do not think you could get away from those figures. It would be considerable underfeeding; and, of course, that means that they become a prey to disease and do have a hard time subsisting.

I think those figures do indicate what happens when they get low incomes.

Commissioner MEEKER. That explains, in part, the high mortality rates which you mentioned this afternoon?

Mr. OGBURN. Yes.

Commissioner SWEET. The desire for amusement and other things prevents them from taking the amount of nourishment they really ought to have?

Mr. OGBURN. Yes.

Commissioner SWEET. And might have with that income, if they would devote it to that purpose?

Mr. OGBURN. Yes; if some all-wise Deity were to lay it off for them and could guide them in making their expenditures this way and that way; but with human nature as it is, which, of course, has to be more or less taken that way—

Commissioner SWEET. Certainly.

Mr. OGBURN. That is the result.

Commissioner MEEKER. Do you think that an all-wise Deity would cut out amusements?

Mr. OGBURN. According to some theological conceptions, I would think so; but I do not know how all-wise He might be.

Mr. LAUCK. Is it not six of one and half a dozen of the other? If you allow them enough to eat, so that they will not be underfed, then they have not got enough to clothe themselves on, with these low incomes, or to house themselves properly, therefore they are overcrowded and not properly clothed and have no amusements? Let us eliminate amusements altogether. If you assume that they eat, they can not clothe themselves or house themselves; and if you assume that they do not eat, they practically have sufficient to house themselves and clothe themselves.

Commissioner SWEET. Have you any data which would tell us in cases of that kind, where the income is too small to really give the family what food it ought to have, whether the whole family suffer from it, or does the mother deny herself and let the children have all they need, and does the old man get all he wants?

Mr. OGBURN. In regard to that, I am afraid I have not got very good figures. I have some on some other things.

There was a study published in the American Journal of Public Health, written by a man named Harris, where he tended to show what happened when the cost of living went up and wages did not go up; and I believe he showed in this, not only the details of the foods that were cut out—butter was eliminated and so on—but I believe in this article he showed that the mother was the one who tended to be sacrificed and the children were the last to be sacrificed. That is certainly the theory in regard to clothing.

Commissioner SWEET. I think that would be human nature, too, don't you?

Mr. OGBURN. I guess if it happened that way, that is.

Commissioner WEHLE. How were the comparative calories studies made? You say you made these studies in these different cities?

Mr. OGBURN. Yes. What we did was to collect the dietary in considerable detail; I think, into about—for food—about 125 items, and these were analyzed by a food expert.

Commissioner WEHLE. How did you collect the evidence as to how much a man bought with the money he put into food? How did you find out how much food he consumed?

Mr. OGBURN. If I understood your question correctly, the analyses were made upon food as bought—not food as consumed.

It is quite conceivable that one might even reduce those figures somewhat, by knocking off a certain percentage for waste.

Commissioner MEEKER. I think Mr. Wehle means: How did we get the quantities of food purchased by the families? The budgets obtained were quantity budgets—pounds of meat of different descriptions, pounds of fish, pounds of beans, pounds of bread, etc., throughout the whole food budget.

Mr. OGBURN. I described that just a little bit this afternoon. You were not here, Mr. Wehle.

The CHAIRMAN. Through the questionnaire and agency systems?

Mr. OGBURN. Through field investigators.

Commissioner WEHLE. Do not repeat it, then, if you have it in the record already. I do not want to have you repeat anything that is already in the record.

Mr. OGBURN. There are just two ways by which the thing is done at all accurately: One is to have the thing weighed as it comes in and weighed as it goes out, by keeping the agent in the house. That is what the Department of Agriculture does, at times.

The other method is to get the record of the housewife for a week and then estimate on the basis of this week's record what it is for the year. But it is collected by an agent in the field.

There may be some error in them, but for practical purposes it is about the only thing you can do.

Commissioner MEEKER. I would suggest, Mr. Lauck, that you put in evidence the prices and costs of living separate issued by the Bureau of Labor Statistics. Mr. Wehle can, by perusing them, find out all about how we did it.

Commissioner WEHLE. I think it would be very unfair of us not to give ourselves the benefit of what the Bureau of Labor Statistics has produced on this subject.

Mr. OGBURN. I have similar data on housing which is to be published in the September Labor Review, and I have the proofs here

before me, as regards the extent of overcrowding in the families. We have here, for about 12 cities, the proportion of the families investigated, where there is less than one room per person. You remember I quoted some infantile death rates to-day.

They run, for the cities, like this: 52 per cent, 31 per cent, 37 per cent, 57 per cent, 84 per cent, 46 per cent, 55 per cent, and so forth; I should say running between 35 and 40 per cent of the families.

Then for those families that have less than .7 of a room per person, it would be somewhat lower, perhaps around 15 or 20 per cent of the families investigated; knowing that there is a certain amount of overcrowding.

That varies from city to city. It is rather notable in Atlanta, Ga., and fairly high in Boston. In some of the western cities it is not so high.

Mr. LAUCK. Prof. Ogburn, are you familiar with the study made by the Children's Bureau relative to the effect of overcrowding upon infantile mortality and the relation of that to income?

Commissioner SWEET. He gave us that this afternoon.

Mr. OGBURN. I quoted that this afternoon. I gave the rates and so forth in that connection this afternoon.

Mr. LAUCK. I beg your pardon then. Are you through with the budget?

Mr. OGBURN. Yes.

Mr. LAUCK. There is one question that I wanted to ask you. This was June, 1918, was it not?

Mr. OGBURN. Yes.

Mr. LAUCK. To bring that up to date, if this was a minimum-comfort budget then, on the basis of the increase in the cost of living, it must be more now; must it not?

Mr. OGBURN. Yes.

Mr. LAUCK. What would you estimate it is to-day, at the present time—the minimum requirements?

Mr. OGBURN. I should think it would be around \$2,000.

Mr. LAUCK. You would apply the 12 per cent increase or approximately that to June, 1919, and you would estimate then that this budget which was the minimum requirement as to health and comfort would cost about \$2,000 at the present time?

Mr. OGBURN. Yes; I did bring that up to date somewhat in this fashion: I took the latest food figures which the Bureau of Labor Statistics had and I multiplied the quantities of food by the prices of the Bureau of Labor Statistics' food items, and then I had some estimates in regard to the clothing; I knew shoes had gone up rather sharply, for example, and I knew that some clothing had gone up pretty well, and I estimated that.

Mr. LAUCK. You had the wholesale index, too?

Mr. OGBURN. Yes. Out of that estimate I figured out that \$1,950 to \$2,000 would be the cost now of what I might call the minimum-comfort budget.

When you think of that figure in terms of wages, you think the wages may sound pretty big; but when you think of it in terms of the details of the budget, it really does not buy so very much.

Mr. LAUCK. It is just keeping want from the door, so to speak, is it not?

Mr. OGBURN. It is providing minimum comfort; yes.

Mr. LAUCK. Do you know what that would be at 325 days a year and 8 hours a day?

Mr. OGBURN. I have not figured that out.

Mr. LAUCK. It would be 76 cents per hour——

Mr. OGBURN. Yes; that would be just about it.

Mr. LAUCK. There is another question I would like to ask, if I may interrupt you for a moment.

Mr. OGBURN. Certainly.

Mr. LAUCK. You remember Dr. Chapin's conclusions in 1907, as to the relations of incomes at that time to the standards of living?

Mr. OGBURN. In a general way; yes, I remember that.

Mr. LAUCK. He says an income under \$800 is not enough to permit of the maintenance of normal standard; is that correct?

Mr. OGBURN. Yes; I think it is pretty generally accepted.

Mr. LAUCK. I am talking about before the war now.

Mr. OGBURN. Yes.

Mr. LAUCK. And an income of \$900 or a little over permits of the maintenance of a normal standard, at least as far as the physical man is concerned?

Mr. OGBURN. What I call the bare-subsistence level.

Mr. LAUCK. Before the war?

Mr. OGBURN. Yes.

Mr. LAUCK. Mr. Sturgis testified this morning that in 1914 the average annual earnings of the street-railway motormen and conductors were \$864; so that on that standard of comparison it would be below a subsistence level, would it not?

Mr. OGBURN. Yes; considering that Mr. Chapin's figures are fairly conservative.

Mr. LAUCK. And his figures were made in 1907, seven years before 1914.

Now, Mr. Sturgis testified this morning, if I remember correctly, that in 1907 the average annual earnings of a motorman and conductor were \$655. Mr. Chapin says, in 1907 that an income under \$800 was not sufficient to permit of the maintenance of a normal standard, so that he would be underfed, underclothed, underhoused, and subnormal. Then, in 1914, this figure of \$864, according to Dr. Chapin's standard, would be below the subsistence level, and according to your own standard or the results of your own study at that time?

Mr. OGBURN. Yes; Chapin's figure might be a little higher than that. I mean, it might be a little over 900 by 1914 on account of food having gone up.

Mr. LAUCK. There were seven years there that were not provided for?

Mr. OGBURN. Yes.

Mr. LAUCK. Anyhow, it would indicate that these earnings were entirely inadequate, would it not, according to your conclusions as to the subsistence level?

Mr. OGBURN. Well, yes; one would think so.

Mr. LAUCK. Prof. Ogburn, you prepared a budget in the Seattle Street Railway arbitration that is reprinted in this pamphlet on

page 30. Could you explain that budget to the commission? That is another minimum-comfort budget. Was that budget awarded by the board and made the basis of the rate of pay to the Seattle employees?

Mr. OGBURN. What page is that on?

Mr. LAUCK. Page 30.

Mr. OGBURN. Yes; that budget was made somewhat in the following manner: There was trouble on in Seattle in regard to the railway situation out there, and I believe they had a strike of two or three weeks, and they submitted it to a board of arbitration, of which Dr. Suzzalo, president of the university, was chairman. And Dr. Suzzalo asked his department of economics and sociology to make a study of the living costs of motormen and conductors' families and set a budget in Seattle. That was in 1917, I believe. And Prof. Parker and myself and several of the other men conducted an investigation over the city and set this figure of \$1,505. And they discussed this budget, I am told—I was not at the meeting or on the board—but they discussed it a couple of days, I understand, and accepted it without a single change at that time. And that budget there of \$1,505 in Seattle in 1917 was what I conceived to be a minimum-comfort budget at that time; that is to say, it compares with my \$1,700 budget somewhat later on.

Mr. LAUCK. To bring it up to date, it would be approximately what your minimum-comfort budget would be now in terms of money?

Mr. OGBURN. Yes.

Mr. LAUCK. Between \$1,900 and \$2,000?

Mr. OGBURN. Yes; approximately that.

Mr. LAUCK. The board, headed by Dr. Suzzalo, of the University of Washington, adopted this, and there was a representative of the company on the board?

Mr. OGBURN. Yes.

Mr. LAUCK. As the result of your studies there in the faculty of the University of Washington?

Mr. OGBURN. Yes.

Mr. LAUCK. They worked that out in terms of hourly rates which they gave to motormen and conductors?

Mr. OGBURN. Yes.

Mr. LAUCK. You referred to another budget, of Dr. Piexotto.

Mr. OGBURN. Yes; Dr. Piexotto is quite a prominent student of budgets and has been very active in social matters on the Pacific coast; and, of course, anything that she draws up in regard to budgets is worthy of very careful consideration, because she is very much of a trained worker. And she set a budget at about the same time as the Seattle budget I have just been speaking about, of apparently the same level, of \$1,476, which is approximately the same figure as the one we set at Seattle. I think that budget was perhaps for the Pacific coast, which would be quite comparable with the Seattle situation, I imagine.

Mr. LAUCK. As I recall, it was for an arbitration board of the Oakland (Calif.) Street Railway.

Mr. OGBURN. I am not sure about that. Maybe it was.

Mr. LAUCK. But that was approximately your minimum-comfort level if brought up to date, was it not?

Mr. OGBURN. Yes.

Mr. LAUCK. So, I gather, your general conclusions are that wages to be adequate now should be based on an income approximately of \$1,900 to \$2,000 after making allowance for the increased cost of living since these budgetary standards have been worked out.

Mr. OGBURN. Yes. I would not necessarily say that would be adequate. It might not necessarily be adequate, but it would give them a little bit more than a fair subsistence. It would give them what I call a minimum-comfort allowance. It would be a minimum-comfort budget.

Mr. LAUCK. You might say it would remove the element of inadequateness and make them barely adequate.

Mr. OGBURN. Yes; I would say that.

Mr. WARREN. It would give them the equivalent of what \$1,760 would have given them in June a year ago.

Mr. OGBURN. Yes.

Mr. LAUCK. I believe these are all the questions I have to ask.

Mr. WARREN. Mr. Lauck, before the questions were asked, you said something about 76 cents an hour.

Mr. LAUCK. Yes.

Mr. WARREN. Was that on the \$1,900 or the \$2,000 estimate?

Mr. LAUCK. I was estimating that if Prof. Ogburn's budget of June, 1918, if brought up to June, 1919, was increased 12 per cent, making it \$1,941, then I applied Mr. Sturgis's 325 days a year and assumed an eight-hour day, and that would make it 76 cents an hour, because we were going to contend for an eight-hour day, and, therefore, I developed this hypothetical rate as being an adequate rate on that basis.

Commissioner WEHLE. What is the average number of hours a day of service of a platform man?

Mr. LAUCK. I am not at all an expert on that, but I think it was about $9\frac{1}{2}$ or 9 hours.

Mr. WARREN. Nine to nine and one-half.

Mr. LAUCK. That is the time paid for.

Commissioner WEHLE. Is the overtime beyond eight hours ordinarily paid at time-and-a-half?

Mr. WARREN. Beyond nine hours.

Commissioner WEHLE. Beyond nine?

Mr. WARREN. Mr. Sturgis testified this morning that Chicago and Boston have eight hours, but I think he said those were the only places.

Mr. LAUCK. Do you care to ask anything further?

Mr. WARREN. I suppose you have not studied the cost of living of street railways as supported by the nickel, have you, Prof. Ogburn?

Mr. OGBURN. No, sir. I notice a little news on that in the subway every morning as I ride down in New York; but other than that—

Mr. WARREN. You do not know any reason why the cost of living has not gone up in the same proportion?

Mr. OGBURN. No; I imagine the nickel has shrunk for the owners of the street-railway lines as much as it has for the workmen.

Mr. WARREN. You said that \$2,000 looked large, but when measured by what it would get it was not very much.

Mr. OGBURN. Yes.

Mr. WARREN. That might be true even of a 10-cent piece now?

Mr. OGBURN. Yes. I think the raw materials we speak of as going into industry have gone up just as much as the cost of living, if not more. Wholesale prices shift somewhat more widely than retail prices.

Mr. WARREN. And, if anything, have gone up faster.

Mr. OGBURN. Yes; usually they go up a little bit earlier and perhaps swing a little bit more.

Commissioner GADSDEN. I would like to ask: In the investigations for the War Labor Board which you have made, what industries you found, if any, having practically in effect this minimum wage. I do not mean street railroads now, but I mean unregulated industries, we will say. Are there many of them whose wage scales comply with this budget, in your judgment?

Mr. OGBURN. Well, I do not know that I am qualified to answer that question. I can give you an opinion in a way.

Commissioner GADSDEN. I want to ask you within the limit of your investigation for the War Labor Board. I put it that way.

Mr. OGBURN. Yes. I believe the awards of the War Labor Board, for the lowest-paid labor in the industries they made awards in, were sufficiently high to equal if not surpass the subsistence-level budget when computed on the basis of earnings. Now, for instance, if you take, say, 42 cents an hour and work an eight-hour day with a couple of hours overtime at time-and-a-half, that would have come, at the time the War Labor Board was functioning—at the time they set their precedents and decisions—to about between \$1,350 and \$1,400, which was the bare subsistence budget at that time. Of course, the War Labor Board did set wages in a good many cases over that figures for various employees in what you would call skilled labor. I do not happen to remember what the figures for skilled labor were, but, of course, they would vary widely from plant to plant.

Commissioner GADSDEN. I was trying to develop this thought: Whether outside of the utilities and regulated industry, industry generally, which could put any price it pleased on its product subject to the laws of supply and demand, were paying their labor in accordance with a budget of this kind, so we could tell how we stood with untrammelled industry.

Mr. OGBURN. As I was saying, the awards of the War Labor Board, insofar as the lowest paid labor go, did equal and cover this subsistence. I do not think they but rarely made an award unless it was in a small town off somewhere, which would yield returns less than the bare subsistence.

Commissioner GADSDEN. You mean 42 cents an hour with two hours overtime?

Mr. OGBURN. Yes.

Commissioner GADSDEN. That is about what the War Labor Board did in a good many cases in the case of street railroads, 42 cents an hour with an hour or two overtime.

Mr. OGBURN. Yes.

Commissioner GADSDEN. So on that basis the street-railway industry was on the basis of those awards measuring up to the same standards with those other industries?

Mr. OGBURN. That is to say, 42 cents an hour on the street railways would be equivalent to 42 cents—

Commissioner GADSDEN. Yes; the same 42 cents with the same couple of hours overtime would produce the same \$1,350 or \$1,400, would it not?

Mr. OGBURN. Yes; that would be true.

Commissioner GADSDEN. Then how do you reconcile those figures with Mr. Sturgis's figures showing that the street railway wage was much less than that?

Mr. OGBURN. I do not remember his figures. I do not know what they were.

Commissioner GADSDEN. Well, my recollection is that he said that in 1900 it was \$990 and in 1916, I think, or in 1917, \$1,200. Now, what I am trying to develop is that the War Labor Board set a standard of about 42 cents an hour in the street-railway industry and you have claimed credit for the other industries of the hour or two of overtime. That is really the point I am getting at. You have allowed for other industries in addition to the 42 cents an hour and the eight or nine hours a day an hour or two overtime. Now, of course, is it not fair to it that that same hour or two overtime should be credited to the street-railway industry if it is credited to other industries in making a minimum wage?

Mr. OGBURN. Well, I look at it in somewhat this way—that during the war period labor entered in upon the arena with a certain wage level which, in a good many instances, was what one might call inadequate as the standard goes, particularly when one thinks of what is called common labor, and perhaps in so far as the subsistence level would enter into it.

Now, most of the industries that I happen to have known about in which the War Labor Board made their decisions were industries in which there was considerable pressure for working overtime; at least, during the war times it was a question of production and driving the forces, to a considerable degree, and yet the temper of their decisions seemed to be on the basis of earnings rather than rates. That is, I think the fact that a family got so much—at least, during the summer time of 1918, when the War Labor Board was shaping its policies, its common labor awards—resulted, when the use of overtime was in vogue, in a very large number of cases, in giving them a minimum of bare-subsistence level. But what they may have done in regard to skilled labor, I am not at all sure exactly what may have happened there. And I do not know, necessarily, what the situation may be now when the drive for production is not so great as it was and the overtime does not come in so very much.

The CHAIRMAN. On page 8 you propose a minimum budget of \$1,386, and on page 13 you propose a budget of a level above the minimum subsistence of \$1,760.50. Both of those budgets are marked out for families of five. Now, have you any figures here to show what a budget should be for families of four or three or two, or for an individual?

Mr. OGBURN. No; I have not.

The CHAIRMAN. Naturally, if this budget of \$1,386 provides just the minimum subsistence for a family of five it might be fairly liberal for a family of two or three, might it not?

Mr. OGBURN. Of course, it would go further with a family of two; there is no question about that.

The CHAIRMAN. Do any of the industries classify wages according to whether a person is married or unmarried or whether he has a family of five, three, or two?

Commissioner MAHON. Or seven or nine?

The CHAIRMAN. That is right.

Mr. OGBURN. No. But the point you are speaking of now is usually looked at in this way: It is quite a job to work out these budgets and plan them out and make careful studies, and so forth, and students of social problems who work them out, work them out for a family of five on this basis: That three children are approximately necessary on the average for the survival of the race. That is to say, a man and wife in dying should be succeeded by two individuals, and two children, therefore, should grow to manhood and womanhood, to the marrying age, and if one allows the chances of death to strike off one during that period during which they are growing into manhood and womanhood, a man naturally thinks of three children.

The CHAIRMAN. Is that the average family in this country?

Mr. OGBURN. Very nearly. Then there is a good deal, of course, which centers around the question of what about men who are not married, and so on. It is supposed to be a pretty good policy to encourage early marriage. It is supposed to be rather a desirable thing for the health, welfare, morals, and so forth, of the community; and it is also considered to be somewhat better for marriage to occur early and have children to be born fairly early. And for all these reasons it would seem unwise for a State, inasmuch as it concerns itself with the minimum race, and so on, to set anything lower than a family of five. That, at least, has been the policy in the past. This has been discussed and worked out after considerable research. Mr. Rountree, in a chapter in his recent book, has concerned himself with this, and he takes all the various exceptions that arise, where a man has a large family and where a man has a small family, and he figures on starting in and saving and equipping a home, and the pressure of children as they come on, and so forth, and he has a good deal to say; and I may say the result of his conclusions particularly justify the size of his family. I think it has been questioned by others, but the only question—I believe someone was telling me of an industry in Chicago which was thinking of considering a different-size unit, a smaller unit, and I think perhaps on one or two occasions that may have come up before the War Labor Board—but as a general thing there has not been very much discussion on that point, I think.

Commissioner MEEKER. As a matter of fact, Prof. Ogburn, is not this standard family chosen rather as the medium? It is not the most expensive family, I mean, or the least expensive family; it is about the medium.

Mr. OGBURN. Yes.

Commissioner MEEKER. The theory is that the young man and the young woman, according to the War Labor Board, should be paid the same wage for the same work and that both can save and should save in order to start housekeeping.

Mr. OGBURN. Yes.

Commissioner MEEKER. And when they have started housekeeping they do not start with a family of three children of 2, 5, or 11 or any other age; they start without any children; and in that period they can and should save against the greater demands that will come with the increase of the family. It is not the most expensive family. The most expensive family is one consisting of children of higher ages. With that family it would be wholly impossible for the family on the income indicated to make both ends meet. It would be necessary for it to set aside savings in order to pass the peak-load period when the family has attained the greatest degree of expensiveness. Have I made that clear?

Mr. OGBURN. Yes.

The CHAIRMAN. Any further cross-examination? You are excused, Prof. Ogburn.

Mr. LAUCK. We would like to introduce Mr. L. Magnusson.

STATEMENT OF MR. LEIFUR MAGNUSSON.

Mr. LAUCK. You have stated your name. Will you state your present position and previous occupation?

Mr. MAGNUSSON. My occupation—I suppose I would call myself an economist, interested in labor problems particularly. I happen to be employed in the Bureau of Labor Statistics, but, of course, on this occasion I do not represent the Bureau of Labor Statistics.

Mr. LAUCK. You were trained for your work as an economist and statistician where?

Mr. MAGNUSSON. Most of the years in the Bureau of Labor Statistics; except one year with the Commission on Industrial Relations and for a brief period with the National War Labor Board.

Mr. LAUCK. Before that you received academic training in statistics and political economy, I suppose?

Mr. MAGNUSSON. Yes; the usual college training in economics, statistics, and so forth.

Mr. LAUCK. How long have you been in this line of work?

Mr. MAGNUSSON. I have been nine years in the Government service and doing practically this line of work of economics and labor investigations.

Mr. LAUCK. You have an exhibit, have you not, or rather we have an exhibit which was prepared by the Bureau of Applied Economics under your general supervision?

Mr. MAGNUSSON. Yes; this is a study or compilation of wage data in various industries in the United States. I will explain briefly what is the nature of the compilation.

Mr. LAUCK. Yes.

Mr. MAGNUSSON. It is based very largely on data that is gathered by various official bodies, principally the Bureau of Labor Statistics, and presented in its Monthly Labor Review. Occasionally the statistics were secured directly from the unions which were represented in the occupations in question, and the marine occupations, of course, were secured from the United States Shipping Board.

I may say it is merely an attempt to present impartially the existing data in summarized form as to wage rates and earnings in the different industries in this country—a compilation of wage rates in

American industry. They have been arranged here in this little booklet in alphabetical order beginning, for instance, with the statement of present earnings in the army and continuing on through until—it so happens, street-railway employees are the last named. I am sure it is impartial and, to the best of my knowledge and belief, I think it is correct, as nearly as can be obtained from authoritative sources.

Mr. LAUCK. How was the data obtained?

Mr. MAGNUSSON. As indicated here—largely from the Monthly Labor Review of the Bureau of Labor Statistics, it having gathered the matter originally.

Mr. LAUCK. Also a study of union rates of wages?

Mr. MAGNUSSON. Also a study of union rates of wages from the union records themselves.

Mr. LAUCK. And you have covered the principal basic industries as well as the leading skilled trades and the metal trades and shipyards and arsenals?

Mr. MAGNUSSON. I think we have everything in here on which there is anything available, indiscriminately.

Mr. LAUCK. That is brought practically up to date, is it not?

Mr. MAGNUSSON. I think—I do not include any teachers' pay rolls here, and I think such data are available in the Bureau of Education, but I think it is practically everything that can be gotten on the subject. That is, that appears in printed form and is available.

Mr. LAUCK. I asked you to prepare a statement, showing on the basis of an eight-hour day, what would be the daily earnings in these occupations in 1914 and 1919 and the relative increase since 1914.

Mr. MAGNUSSON. Taken from this, about 100 of the principal occupations, and of the wage rates there presented, assuming that a man works eight hours a day in 1914 and 1919 you can find out very readily what his daily earnings have been. These I have arranged in a table according to the mount of earnings in 1919, beginning with the highest daily earnings down to the lowest daily earnings in 1919. I find there—

The CHAIRMAN. What page is that?

Mr. MAGNUSSON. It is not anywhere in there. It is a special exhibit; a kind of summary. It is not in the booklet. When I refer to the booklet I call attention to various pages.

The CHAIRMAN. Are you going to read all those figures?

Mr. MAGNUSSON. No; just some examples. The table will be submitted.

Mr. LAUCK. I am going to submit the tables to-morrow in connection with our brief.

Mr. MAGNUSSON. For instance, beginning here with rollers in sheet mills and iron and steel works, their daily earnings in 1919 were \$20.60. In 1914 they were \$11.45, an increase of approximately 80 per cent. Beginning with these, the highest wage earners, I went down to the lowest wage earners.

The CHAIRMAN. What page are you on?

Mr. MAGNUSSON. This is not on any page. It is a summary of the exhibit which will be submitted to-morrow.

Mr. LAUCK. If the commission would like it, I can give you a copy of the brief we are going to submit to-morrow and you can be looking over this table.

The CHAIRMAN. No; just go ahead.

Mr. MAGNUSSEN. I was citing these few examples. The lowest paid are the trapper boys in bituminous coal mines in the Hocking Valley district, which in 1919 earned \$2.65 on an eight-hour day. That represents an increase of approximately 101 per cent over their earnings in 1914. That is the highest and the lowest.

In that list I may point out, while I am here—next to the last are motormen and conductors on street railways, earning \$3.38 per day and 42 cents an hour as against \$2.27 in 1914, an increase of approximately 49 per cent. And then the other intervening occupations show varying rates.

Mr. LAUCK. Suppose you read on up above the motormen and conductors.

Mr. MAGNUSSEN. Common laborers in iron and steel.

Mr. LAUCK. Will you explain how that rate of 42½ cents in 1919 was arrived at for motormen and conductors?

Mr. MAGNUSSEN. We have here on this book which you hold, on page 51, a statement of the maximum hourly rates of wages of motormen and conductors in the cities named there in the left-hand column.

If you will notice those are the maximum rates. It takes the motorman about 2 years, as I understand it, to get to that maximum, as a rule, and in some cases 10 years. But that is the highest they can earn. These are wage scales in the cities named.

By adding up all those items and dividing by the number of items, you get the average wage scale for all the cities, which comes to about 42½ cents.

Mr. LAUCK. How many cities are there? One hundred and twenty, are there not?

Mr. MAGNUSSEN. They are not counted here, but I think there are something over 100 cities there, principal cities.

Mr. LAUCK. And they include the large cities?

Mr. MAGNUSSEN. They include the large cities; among others New York, where the highest earnings are paid of 79 cents per hour for motormen on the elevated.

Mr. LAUCK. It has the Boston rate of 60 cents per hour, has it not?

Mr. MAGNUSSEN. The Boston elevated and surface lines have 60 cents per hour.

Mr. WARREN. Isn't that a misprint as to Boston, for the motormen on the elevated line? I think they get 62 or 62½.

Mr. MAGNUSSEN. This is as recent as we could get it.

Mr. WARREN. It was established at the same time as the 60. I happen to remember it. I was down here at the time. There was a strike, and after the strike it was 60 cents for the surface and 62 cents for the elevated. I judged it was just a misprint, probably. That was in July.

Mr. MAGNUSSEN. We just got this from the printer this morning.

Mr. WARREN. I think you might check that then.

Mr. MAGNUSSEN. I will look it up.

Mr. WARREN. I think you will find that it is wrong.

Mr. MAGNUSSEN. Surface lines in Brooklyn get 62 cents an hour, for instance.

The lowest there anywhere is 29 cents per hour.

Mr. LAUCK. You have a rate of 28 cents an hour in Galveston, Tex., but the showing for all the rates, the high and low averaged, is $42\frac{1}{2}$ cents an hour for approximately 100 cities, representing the large and the small together?

Mr. MAGNUSSEN. Yes.

Mr. LAUCK. You are not acquainted with the rate that Mr. Sturges showed this morning?

Mr. MAGNUSSEN. I did not hear that. I don't know what that was.

Mr. LAUCK. I think his rate was 41 cents, approximately, or 41.04 average for 400 and some locals out there?

Mr. MAGNUSSEN. As I say, that $42\frac{1}{2}$ cents would not represent the earnings of any particular motorman. It is a general average, as nearly as I can get to it. They would earn one side or the other of that.

Its principal value is in that it makes possible comparison with these other occupations that I have here, which are treated in the same way and show where the motormen, as a whole, stand among the other occupations.

Mr. LAUCK. For instance, your bituminous-coal-mining business, the track layers, cagers, or drivers—any occupation in the coal mines is based on what? The general bituminous scale?

Mr. MAGNUSSEN. Yes. Coal mining you will find on pages 23 and 24. Most of the rates there are daily rates.

You can very readily see, by dividing by 8, that you will get a considerably higher rate than $42\frac{1}{2}$ cents, except in the case of trappers at \$2.65 a day.

In the anthracite region, page 23, the common laborers are getting a maximum of 46 cents.

The contract miners are getting, by computation, as you will see, 64 to 69, and approximately 85 cents per hour.

The CHAIRMAN. Have you a table here showing the wages in the railroad service—steam railroads?

Mr. MAGNUSSEN. We have got the railroad shopmen, some of them here on page 37. Machinists in the railroad shops, 72 cents in 1919. Blacksmiths, the same. Boilermakers, the same, of course. That is fixed by a general order of the Railroad Administration; compared with the rates of 68 cents in 1918.

Mr. LAUCK. They are at present on an 8-hour day, too; are they not?

Mr. MAGNUSSEN. Yes.

Commissioner GADSDEN. Have you worked out any general averages based on this?

Mr. MAGNUSSEN. For all?

Commissioner GADSDEN. Yes.

Mr. MAGNUSSEN. Except this general table that we have here, list of occupations, in the order of their daily earnings.

Commissioner GADSDEN. What page is that?

Mr. MAGNUSSEN. That is in this exhibit that is going to be submitted. It is a summary table of everything in here.

Mr. LAUCK. Just read us from the bottom. The point we want to establish is that, on the basis of an 8-hour day, in 1919, considering the average for motormen and conductors for the whole country,

they are the lowest paid employees of these 100 occupational groups that we have?

Mr. MAGNUSSON. Reading up, beginning with motormen and conductors, we found that their earnings were \$3.38 on an 8-hour basis; common laborers in iron and steel, \$3.48; laborers in the navy yards, \$3.56. Greasers and couplers in the bituminous coal mining, Hocking Valley District, \$3.64; laborers in the arsenals of the Government, \$3.68 per day; in the shipyards of San Francisco, laborers, \$4.16; hod carriers and masons' attendants in the building trades, \$4.29; anthracite-coal-mining laborers, \$4.68; the same for carpenters in that industry; longshoremen, coastwise, \$4.74; tracklayers, helpers, dumpers, trimmers, in the bituminous coal region, Hocking Valley, \$4.75.

Commissioner GADSDEN. Have you got any other utilities in there—besides street railroads—any other regulated industry—telephone, water, gas, or electric?

Mr. MAGNUSSON. We have not. I tried to secure those but no one seemed to have any compilation on them.

Commissioner GADSDEN. It would be a helpful comparison; would it not?

Mr. MAGNUSSON. Yes.

Commissioner GADSDEN. Those comparisons are comparing employees in a regulated industry whose income is fixed by law with wages paid to employees in industry unregulated?

Mr. MAGNUSSON. Yes. There is just this one instance that I can cite.

Commissioner GADSDEN. It would be helpful to us if you would give us a comparison of street-railway employees and employees in other public utilities.

Mr. MAGNUSSON. I can only give you this interesting instance. Up in New York, in the Consolidated Gas Co., they are paying their ashmen 68 cents per hour. That is just an example up there in New York; but I have no general information.

Commissioner GADSDEN. New York would not be a fair comparison as a scale.

Mr. MAGNUSSON. They paid their motormen up there in New York 79 cents. I just read that a little while ago. Motormen on the elevated and the Brooklyn Rapid Transit are getting 79 cents, and on the surface lines 62 cents. As I say, by comparison with ashmen in the Consolidated Gas Co., they are getting 68 cents per hour.

Electricians are included. In the shipyards of Delaware, for instance, they are making \$6.40 a day.

The CHAIRMAN. That book is going to be put in evidence; it is going to be filed, is it not?

Mr. MAGNUSSON. That book will be filed and this other one also will be filed.

No studies have been made of the other utilities. We have no information on it except what is in the record of particular companies.

Commissioner MAHON. You made reference to trappers in the mines. They are boys, are they not?

Mr. MAGNUSSON. Yes; they are just underpaid boys.

Commissioner MAHON. They are just boys?

Mr. MAGNUSSON. Yes.

I made a list of the occupations; which, since 1914, as I run through this list, have increased their wages 100 per cent or higher. That may be useful in connection with the street railways, in which it appears that the ordinary average increase appears to have been in the neighborhood of 50 or 60 per cent at the highest.

The following occupations have had increases of 100 per cent or over, such as privates in the musicians in the Army; machinists' helpers; oilers; machine operators at Government arsenals; bricklayers; carpenters; painters; plumbers in Charleston, S. C.; also plumbers in Baltimore, and so forth; steamfitters in Boston, Manchester, Providence and Baltimore; firemen and machinery repairmen; inside and outside laborers in the anthracite coal mines have had wages increased over 100 per cent; the various kinds of dredge workers on the Great Lakes; farm labor in Delaware; the firemen on ferry boats in New York; and practically all workers on the nonpropelled boats in New York Harbor; practically all occupations and departments in the steel industry; longshoremen in Philadelphia, Baltimore, and Norfolk; the coastwise longshoremen in Boston, Philadelphia, Baltimore, and Jacksonville; and practically all occupations in the marine have had increases of over 100 per cent since 1914.

Mr. LAUCK. The general conclusions that you make from this comparison and the approximately 100 occupations is then, as I gather, Mr. Magnusson, that of these 100 occupations the daily earnings on an eight-hour basis of motormen and conductors in 1919 are practically the lowest, with the exception of trapper boys in the mines, who are below the age of maturity, are they not?

Mr. MAGNUSSON. Yes.

Mr. LAUCK. And also that, with the exception of the printing trades, which did not feel the pressure of the war particularly, and the building trades where they secured increased earnings largely from overtime, that the rate of increase of 48 per cent to motormen and conductors was practically the lowest rate of increase of any class of industrial workers; was it not?

Mr. MAGNUSSON. Yes; outside of those you mentioned, the linotype operators and compositors and a few building trades, that is the case; particularly bricklayers in the building trades. In the case of carpenters most of them went into the shipyards and drew the shipyard wages.

Mr. LAUCK. That is all the questions I have to ask.

Mr. WARREN. May I ask a few questions, Mr. Chairman?

The CHAIRMAN. Certainly.

Mr. WARREN. On this schedule, as I understand, the average rate is obtained by adding all these 1919 rates up and then by dividing by the number of names appearing in the left-hand column?

Mr. MAGNUSSON. Not by the number of cities, but by the number of items entered there, scaled. You see, under Boston there are four scaled, and the same under New York.

Mr. WARREN. Take, for instance, as you run down the list—I see Bridgeport, Conn., 45 cents. Did that count once?

Mr. MAGNUSSON. Yes.

Mr. WARREN. Then Hartford, Conn. Did that count again?

Mr. MAGNUSSON. Yes.

Mr. WARREN. And so on?

Mr. MAGNUSSON. Yes.

Mr. WARREN. And I notice in that list for the North Atlantic States that there are 12 cities, all of which are on the Bay State Co.?

Mr. MAGNUSSON. Yes.

Mr. WARREN. And with all of which, together, the Bay State Co. represents a much smaller number of men than the Boston Elevated?

Mr. MAGNUSSON. Surely. It is an unweighted average, of course.

Mr. WARREN. But I mean that one company would count 12 times as against the Boston Elevated once?

Mr. MAGNUSSON. Yes.

Mr. WARREN. And the same with the Connecticut Co.; it would count six times—Hartford, New Haven, Bridgeport, and so on?

Mr. MAGNUSSON. Yes.

Mr. WARREN. I just wanted to make sure that that is the way you figured it.

Mr. MAGNUSSON. Yes. It is very rough. That, of course, if the company had a low average there, would tend to increase the average.

Mr. WARREN. Suppose, for the 12 Bay State items there, each of which counted once, you had put the new rate which is fixed by the War Labor Board, which, I understand, is 51 cents; it would make quite a difference in the result, would it not?

Mr. MAGNUSSON. 51 cents.

Mr. WARREN. Instead of 45?

Mr. MAGNUSSON. Bridgeport, Conn., has been raised to 51?

Mr. WARREN. No. Not Bridgeport, but the Bay State cities, beginning with Brockton, Chelsea, Fall River, Gloucester, Haverhill, Lowell, Lynn, Quincy, etc.?

Mr. MAGNUSSON. Yes; that being raised to 51 might make some difference.

Mr. LAUCK. But it would not change it materially?

Mr. MAGNUSSON. It would not change it materially, because that is only one out of all these others.

Mr. WARREN. It is 12.

Mr. MAGNUSSON. Those 12 cities there are at that Bay State rate.

Mr. WARREN. It is all one company, you understand.

Mr. MAGNUSSON. Yes.

Mr. WARREN. So those 12 cities are all one company.

Mr. MAGNUSSON. Yes.

Mr. WARREN. And the six Connecticut cities are all one company.

Mr. MAGNUSSON. Yes; I do not think it would raise it very materially. I would have to add it up to see.

Mr. WARREN. Then Springfield, you have \$3.87. That, I happen to know, was raised to \$5.13, because I was on the arbitration board; and the same in Worcester—it was raised to 57.

Mr. MAGNUSSON. You understand these changes are taking place very rapidly. While you are printing you can not keep track of it.

Mr. WARREN. That is just what I want the commission not to overlook, that these changes are taking place very rapidly.

Mr. MAGNUSSON. Most of these were pretty late for all the other occupations. The only industry that has been changing the most rapidly has, perhaps, been the street-railroad industry.

Mr. WARREN. Yes. Most of their agreements ran out about the 1st of June.

Mr. MAGNUSSON. Yes.

Mr. WARREN. And either through the War Labor Board arbitrations or separate arbitrations they have been adjusted during the summer, and some are still pending.

Mr. MAGNUSSON. Yes.

Commissioner SWEET. It would not be very difficult, would it, Mr. Warren, to correct those inaccuracies in that table?

Mr. WARREN. I do not think it would.

Commissioner SWEET. And bring them down to date?

Mr. WARREN. I do not think it would. I can correct, in a sort of unofficial way, a great many of them, from my own acquaintance with the figures. Of course, it would be possible to lump them. Take those 12 Bay State cities, each appearing at 45; it is all one company.

Commissioner SWEET. Yes.

Mr. WARREN. And it is a company, as I remember it, of about one-third of the size of the Boston Elevated, whether in employees or mileage or earnings or anything else.

Mr. MAGNUSSON. There is this to be said about that: Even if you do get those up to date, the errors in this table the other way are equally as great as the errors in the direction you have pointed out, because these include the unionized cities with the higher wage scales, and do not include the hundreds of other cities which are not organized, which have not these union wage scales nearly as high; so that the errors would probably be equal both ways.

Mr. WARREN. The number of nonunionized cities—that is, not Amalgamated cities—Philadelphia, for instance? Is that in here?

Mr. MAGNUSSON. It is not in here.

Mr. WARREN. That was testified to yesterday as 58 cents. How is Milwaukee? Is that in here?

Mr. MAGNUSSON. Milwaukee is not in here.

Mr. WARREN. I think that is not an Amalgamated city, although they have a union of their own. That has gone up to a high rate, too.

Mr. LAUCK. Did you hear Mr. Sturgis's testimony this morning, Mr. Magnusson?

Mr. MAGNUSSON. I did not.

Mr. LAUCK. He gave the returns of over 200 cities, and at a lower rate than you show, based upon the scales of the Amalgamated Association.

Mr. WARREN. That was as of January 1, I believe?

Mr. LAUCK. As of January 1; yes.

Mr. WARREN. He was going over and correct it and bring it down to date.

Mr. MAGNUSSON. I tried to correct this and bring it down to date, but we could not get replies in time, so that I had to depend on the reports of the Amalgamated Association.

Mr. WARREN. I think it has been going up so fast that if you make a stop at any time, by the time you get it in print, you will find that it is not up to date. Isn't that so?

Mr. MAGNUSSON. I want to point out that there are probably as many cities omitted here at low rates as there are cities omitted at high rates; so that the tables' errors probably balance both ways.

Mr. WARREN. I think the large cities have very likely gone up, you will find.

Mr. MAGNUSSON. Most of them are here, the larger cities—outside of Philadelphia and Milwaukee. Duluth, for instance, I happen to know about, is not on this group here, but the rates are very much lower than the Amalgamated Association rates for cities of similar size.

Mr. LAUCK. The statement is being made by Mr. Warren, Mr. Chairman, that the rates are going up so fast that you can not keep track of them.

This morning the best testimony we had was that there were 20 out of 1,000 that had increased their rates since the 9th of January, 1918. It seems to me that those statements ought not to go into the record, or Mr. Warren should submit data to cover a general statement of that kind.

The testimony that we have received does not indicate anything of that kind at all—that increases are being made in the principal cities; but Mr. Sturgis indicated for over 200 cities, in January, the rate was 41.04 per hour, based upon the actual scales.

Then, the best testimony that we had this morning, including the statement of the secretary of this board, who was formerly secretary of the War Labor Board, just the general statement was that there had not been more than 20; and Mr. Sturgis's statement was that there had not been more than 20 out of 1,000 companies that had increased since January, 1918.

The CHAIRMAN. How did you get the information about the increases, Mr. Lauck?

Mr. LAUCK. Mr. Sturgis's exhibit this morning was based upon the actual scales of the Amalgamated Association in printed form as contained in their records. They extended to January, as I understood, of this year, or December of last year.

The CHAIRMAN. Do you want us to take it as a fact that there have only been 20 cities in which increases have been made since January 1, 1918?

Mr. LAUCK. No; it is not my object to establish the fact, but I want to protest against the statement that street-car wages are going up so rapidly that we can not tabulate them; because I do not think that that is in accordance with the facts. I think that there have been some increases since January, 1918, but I think there have been comparatively few in number as compared with the industry as a whole.

The CHAIRMAN. Of the thousand street-car companies you spoke of, how many of them are members of the Amalgamated Association?

Mr. LAUCK. I could not answer that.

The CHAIRMAN. Can you answer that, Mr. Mahon?

Commissioner MAHON. I could not give you the exact information.

The CHAIRMAN. Have you got figures which will show that?

Mr. MAHON. What is that?

The CHAIRMAN. The companies, or the number of companies, in which increases have been made since January, 1918.

Commissioner MAHON. Mr. Chairman, I have wired to our office this evening, asking them to tabulate and forward that information

to me at once. It will take a few minutes for them to do it. We have our records of each raise in wages, or any changes in wages that come in, and of course, it is tabulated upon our records, and we print them once a year, under our laws, and forward them to all our organizations, and then correct them from that time on during the year, as they may be needed in different cases.

The CHAIRMAN. Will the information we get from your office be up to date?

Commissioner MAHON. It will be up to date, right up to the day it is sent out, which I presume will be to-morrow morning. I wired them this evening and asked them to send it to me.

The CHAIRMAN. Will that supply the information you are asking for, Mr. Lauck?

Mr. LAUCK. Yes; that will be perfectly satisfactory.

Commissioner MAHON. I hope when we get it that Mr. Warren will communicate it to all the companies and have them all come up to date on it. I have that hope.

Mr. LAUCK. That is all.

The CHAIRMAN. It is practically our usual hour of adjournment, and it is hardly worth while to put on another witness this evening.

Mr. LAUCK. We have one more witness, Mr. Chairman, who will be here the first thing in the morning.

The CHAIRMAN. Very well. We will adjourn until 10 o'clock to-morrow morning.

(Whereupon, at 10 o'clock p. m. an adjournment was taken until to-morrow, October 2, 1919, at 10 o'clock a. m.)

WASHINGTON, D. C., *October 2, 1919—10 a. m.*

Met pursuant to adjournment.

Present: Parties as before.

The CHAIRMAN. You may proceed, Mr. Lauck.

Mr. LAUCK. I will call Mr. Jones.

STATEMENT OF MR. STILES P. JONES.

Mr. LAUCK. Will you give your full name to the reporter, Mr. Jones?

Mr. JONES. Stiles P. Jones.

The CHAIRMAN. What is your address, Mr. Jones?

Mr. JONES. My home is Minneapolis, Minn.

Mr. LAUCK. Will you state for the commission, Mr. Jones, what your experience has been in the street-railway industry? You have been a student of the street-railway problem for some time.

Mr. JONES. My profession is that of a newspaper worker and editor—reporter and editor. My special field is Government affairs of the municipalities and State. That was my work for 15 years, up to 1903. At that time I became the executive secretary of a movement in Minneapolis known as the Municipal Voters' League, whose work was to revise the conduct of city and State government.

I was with that organization for 11 years, until the beginning of 1915.

My work in that connection brought me in contact with public utilities, through their relations with the municipality and public.

I took a great interest in that subject, and during those 11 years, made a very extensive study of the public-utility problem, with especial reference to its relation to city and State government.

That study took me all over the United States, the northern part of the United States, and in most of the cities of that district. My studies covered the fields of operation, of service standards, of franchises, of regulation, and, to some extent, that of the financial management of the companies.

Early in 1915, with the imminence of the street-railway problem in Minneapolis, I became the executive secretary of an organization known as the Public Franchise League, whose purpose was to study that proposition.

That organization later merged into a larger and more comprehensive organization known as the Central Franchise Committee, a committee of 50 representing every civic body in the community.

I was the executive secretary of that organization and directed, with its executive committee, the move for a just settlement of the street-railway question in Minneapolis.

I analyzed the various valuations made, made a study of all the court decisions, the work of the public-service commissions in that connection, and all the other tasks connected with such a movement.

At the same time, 1917, I was employed by the city of Minneapolis to write the franchise. That franchise was the basis of the franchise that has now been submitted to the voters of Minneapolis for their ratification. This new franchise is my franchise, reconstructed into a service-at-cost franchise.

During the year, up to June 1 of this year, I was an employee of the National War Labor Board as an administrator of awards.

I think that covers my work in this line.

MR. LAUCK. Mr. Jones, during the past two months you have been engaged, with the assistance of other persons, in preparing a general exhibit as to financial management of street railways in the past, have you not?

MR. JONES. In the past two months I have been engaged in an intensive study of the financial management of street railways.

MR. LAUCK. What has been the object of that study; to afford illustrative examples from the past history of the companies?

MR. JONES. A great deal has been said upon the question of overcapitalization of street-railroad companies. It seemed wise to have something more than a general statement, no matter how well recognized that might be; to have something concrete to put before this committee as to instances of this overcapitalization.

MR. LAUCK. You have prepared an exhibit, have you? Have you a copy of that exhibit with you?

MR. JONES. I have. I have my own copy.

MR. LAUCK. Will you tell us what is the title of that exhibit and explain it in a general way as to the contents? Indicate the extent to which it has gone and the number of cities you cover in your study.

MR. JONES. This is a study of the financial mismanagement of street railways presented by the Amalgamated Association of Street and Electric Railway Employees of America.

Mr. LAUCK. What cities, in general, have you covered?

Mr. JONES. This covers some 18 or 20 cities, with one or two exceptions, cities of the North. Those cities are representative cities, they have not been picked out as instances of notorious overcapitalization.

This method has been used in selecting those cities: To find cities where it was possible to draw fair conclusions as to the overcapitalization through some comparative basis like valuations by the courts, by the public-service commissions, by arbitration, or by mutual agreement, or some other fair method by which comparisons could justly be made.

Mr. LAUCK. You consider these cities representative and typical of the country as a whole?

Mr. JONES. These cities are fairly representative of the situation in the United States, so far as I have knowledge.

Mr. LAUCK. Probably the greatest economy of time would be secured by either going over each city or perhaps it would be better to read your general conclusions from this, or state them, and then, if the commission wishes, we can take up each city and explain the situation as to each city.

Mr. JONES. I have prepared a short statement which gives the general and concrete methods of overcapitalization, and my own conclusions; and with the approval of the commission, I will read that as a foundation for what may follow. It is not a long statement.

The present unfortunate predicament of the street-railway industry in the United States is one, in large part, of its own making, created primarily by past financial mismanagement over which the public had no control and for which in this issue it can not justly be held responsible.

A study of the financial history of many representative companies discloses an amazing story of financial manipulation clear through the life of the properties, the results of which have been to load them down with a staggering burden of overcapitalization to constitute a permanent charge against operating revenue. The ingenuity of the financial management in creating new sources of capitalization has been without limit. Nothing has been overlooked upon which to hang new issues of securities.

The inevitable result is seen in the present undermining of the financial structure of street-railway investments in this country. The credit of the industry is so impaired that it can no longer finance its own enterprises on possible terms. It is facing collapse through its own devices.

The methods and agencies by which this unfortunate situation has been brought about frame a sordid background of ruthless exploitation of a great public-serving industry to make financial killings for manipulating insiders. Unwarranted promoters' rewards, excess construction costs, consolidations, mergers, reorganizations, leases, stock bonuses, have all been made the medium for capital inflation. Franchise values, excess earnings, prospective future earning capacity, discounts on securities, even operating deficits, have been capitalized to further add to the burden. Every operating improvement, the increased efficiency of employees, the growth and development of the community and of industry have been, to a large

extent, used as a means to absorb fictitious issues. And, finally, let us not forget the ingenious device of the holding company, to still further complicate a before complex organization situation and serve as another means to pyramid capitalization and exact additional toll of the public.

Besides destroying the financial credit of the industry, the results of such practices are seen in other ways affecting public interests, as follows:

1. Impaired service: To meet the excess exactments of capital, service has had to suffer.

2. Impaired operating efficiency: The effort to protect the integrity of these false values has absorbed the efforts and resources of the companies to such an extent as to make it impossible for them to fulfill adequately their primary function as public-serving institutions. Prior recognition of the interests of the investor has made it necessary to keep down wages and labor and to postpone expenditures calculated to improve operation efficiency.

3. Maintenance has been robbed to meet fixed charges and pay dividends: The interest of capital has been put ahead of the upkeep of the physical property, with the result of diminished operating efficiency and the piling up of an enormous load of deferred maintenance, in the aggregate, to constitute another ultimate burden upon the public.

4. The public attitude toward many individual companies and the industry in general has been affected to such a point that amicable settlements, franchises, fares, and otherwise, between the companies and the communities are, in many cases, well-nigh impossible, owing to the present state of the public mind. This is perhaps the most discouraging aspect of the present situation, as well as the most serious indictment of the past methods and policies of the industry.

Now, what is the background and what is the cause of this attitude on the part of the public? I have spent a great deal of time in probing the public through the country in past years to learn its attitude toward the street railways. It is an interesting and, in a way, an amazing story. I think that it is of great interest to this commission that it know something of the state of the public mind. Perhaps in the testimony that has been heard here that point has not been stressed enough. It is of vital importance.

Why this attitude on the part of the public?

(a) The public believes generally that street-railway companies are grossly overcapitalized and that it is carrying the burden in higher fares than necessary or inferior service.

(b) Refusal of the companies to lower fares in other days when the going was good.

(c) Attitude of the companies in this crisis toward their public contracts.

(d) Arbitrary attitude of the companies toward the public.

(e) Political activity of the companies.

MR. LAUCK. Will you take up individual cases and briefly state the history in representative communities?

MR. JONES. There has been a good deal of testimony before this commission regarding the street-railway situation in New York. Apparently it is as acute there, if not more so, than in most other cities.

The study of the development of the transportation industry in New York City is a long one and a sordid one. There is not the time here to go into it. Apparently, in New York they reached the climax of human ingenuity in devising schemes of exploiting the public through the public utilities.

I have included in the brief which is before the commission the story of the development.

The more important part of the development of the street-railway industry in New York, as reported by Burton Kendrick, a magazine writer of a decade ago, widely known through the country, is contained in three numbers of McClure's Magazine for 1907. Mr. Kendrick's charges and statements, so far as I have been able to ascertain, have never been challenged. McClure's Magazine was reputable, and any judgments against that concern undoubtedly could have been met. So I think we may assume that those statements are correct.

We have in New York the first instance that I have run into in the street-railway industry of construction through the means of the now famous cost-plus system.

One instance of how that worked out in New York is the Thirty-fourth Street crosstown line. The estimated cost of that improvement was \$150,000 a mile; the actual cost, under the cost-plus system, was \$1,067,000 a mile. With that statement I will dismiss New York.

One of the most noted street-railway contests in the country to-day is that involving the Public Service Co. of New Jersey. I will refer briefly to the financial situation which is largely the basis of the present troubles there, and which is making the settlement of the fare question extremely difficult.

We have no official valuation of the properties of the Public Service Co. of New Jersey. I suppose ultimately the public-service commission is to undertake this, but it happens that the municipalities of New Jersey combined in an attempt to head off the movement for excess fares over the lines of the system.

This league has employed eminent men to conduct this campaign for them. One of those is a certified public accountant by the name of Mark Wolf. He has made an extensive investigation of the finances of the company, and has reported officially to the League of Municipalities. This is what he found: That there was a capitalization of the concern to the amount of \$157,000,000. Mr. Wolf made an examination only of \$54,749,500 of the aggregate of the securities of the company. In that amount he found an inflation of \$82,067,754, or a percentage of 53 per cent.

Mr. LAUCK. That was the percentage of overcapitalization?

Mr. JONES. That was percentage of inflation—53 per cent. He did not work out the other percentage, and I have not.

Commissioner GADSDEN. Is that the Public Service Co. or the Public Service Railway?

Mr. JONES. The Public Service Railway Co., I should have said.

Commissioner GADSDEN. Railway company?

Mr. JONES. Yes.

Mr. LAUCK. Will you take up the next company, Mr. Jones?

Mr. JONES. I have just a little to add to Mr. Wolf's statement. This capitalization of \$157,000,000 represents \$200,000 per mile. Now, in each case I have included here the capitalization per mile.

As you gentlemen know, that by itself is not a fair basis of comparison, because the condition is so different, the character of construction, the amount of modern paving and the character of that paving, the amount of power facilities in the city—there are many factors contributing to this capitalization per mile, and it is difficult and not always fair to make these comparisons. But they are of value in connection with other facts in that connection.

Now, Mr. Wolf says that during the mergers and consolidations effected to bring about the present Public Service Railway Co. as much as \$25 of the stock of one company was exchanged for \$1 of the stock of another company. In one case, \$22 in bonds was exchanged for every \$1 of stock. He says that the net results of exchanges in one consolidation was that \$16,721,800 was added to the capitalization of the original companies. He shows in another case that there was a grand total of inflation of both stocks and bonds in connection with another series of consolidations of \$29,250,200.

Mr. LAUCK. That is included in your exhibit, is it?

Mr. JONES. It is all included in my exhibit.

Mr. WARREN. Would you give the page?

Mr. JONES. Again, going a little further in Mr. Wolf's diagnosis, he refers to the rentals. He says the annual rentals of the Public Service Railway Co. are excessive to the extent of the interest on the watered bonds and guaranteed dividends on watered stock which form the basis for rentals. The total annual fixed charges he found to be \$5,210,000 and says, "An investigation of about 85 per cent of the securities of the underlying companies which form the basis for rental discloses approximately \$1,291,000 excess annual rental. In addition the annual interest on bonds which are not the basis for rental was found excessive to the extent of approximately \$550,000 per annum, the two items together aggregating \$1,840,000 annual fixed charges ascertained to be excessive. In addition the Public Service Railway Co. expects to earn a 4 per cent dividend on its \$50,000,000 stock outstanding. Of this stock approximately \$30,000,000 represents no investment."

Commissioner GADSDEN. Mr. Jones, was that report the result of that investigation given to the Public Service Commission of New Jersey? Was that a part of their recent hearings?

Mr. JONES. It is a part of the exhibits; yes.

Commissioner GADSDEN. And after hearing that report—

Mr. JONES. I should have said that all these facts were used in the hearings before the New Jersey Public Service Commission.

Commissioner GADSDEN. After a full hearing the commissioners of New Jersey put in the recent zone fare, did they?

Mr. JONES. Yes.

Commissioner GADSDEN. So that they had the benefit of that investigation before them?

Mr. JONES. They had the benefit of all those facts.

Commissioner GADSDEN. And after having that, the commission rendered its judgment?

Mr. JONES. I understand so.

Mr. LAUCK. In that connection, Mr. Jones, it is not our purpose, I think as you understand and I might explain to the commission—in submitting the financial matter as bearing upon fares, we consider it largely a past episode. But as indicating, where there has

been financial difficulty, that it has been due to financial mismanagement in the past and that a continuation of this method would lead to the absorption of further operating revenues which would be a distinct disadvantage to labor. I mean, we are not primarily concerned with the fares asked for.

Commissioner GADSDEN. Is not the inevitable effect, Mr. Lauck, of testimony of this kind, as we say, going into the history of the past, to undermine the whole structure of electric-railway rates in this country to-day? Is not that going to be the net result of it?

Mr. LAUCK. I think that that is something that has already been done and this evidence would have no effect upon it. It is my personal opinion that the past financial mismanagement has so impaired the credit now that the public will insist that there be some basis of procedure on the basis of fair valuation or some reorganization of the finances. I do not think anything that we could submit here would further add to what has been done in that regard.

The CHAIRMAN. Proceed, Mr. Jones.

Mr. JONES. The next case is that of Chicago——

Mr. WARREN. Before you leave the Public Service Co., did you state the mileage of the company?

Mr. JONES. I think it is in the brief.

Mr. WARREN. I do not find it in the brief, that is all.

Mr. JONES. Well, I can state it. It is very close to 800 miles.

I will refer here very briefly to the Chicago railways' situation prior to the organization of 1907 and the present situation in that city. They are entirely different propositions, but related to this present situation.

In 1901, the Chicago Civic Federation made a thoroughgoing investigation of the Chicago street railways. It found at that time a capitalization of \$118,000,000 and the federation's report declared that \$72,000,000 of this represented nothing more substantial than water.

The man in charge of that investigation, I might add here, was Dr. Milo R. Maltbie, now of New York, for many years a member of the New York City Public Service Commission and one of the most——

Commissioner MEEKER. The New York State Public Service Commission?

Mr. JONES. I mean by that, the down-State—the New York City part of that commission; not the up-State—and one of the most eminent authorities we have in this line in the country.

In 1907 the city of Chicago effected a settlement with the two surface lines then controlling the industry, on the basis of a valuation of \$55,000,000. I think it is generally acknowledge that that valuation was about \$15,000,000 in excess of the physical value of the property. Under the contract of 1907, capitalization has nothing to do with the street-railway situation in Chicago. The companies are guaranteed their capital investment, which was that original \$55,000,000 plus all additions to capital, and that capital has been, so far as we know, honestly expended and wisely administered.

The present capital investment of the Chicago surface lines is \$156,000,000 plus.

The question of an increase in fares in Chicago has been before——

Mr. LAUCK. I think it would be better, and it would save time, if you would not go into the fare question, but just confine yourself to the question of overcapitalization.

Mr. JONES. Yes. I am just laying the foundation. In connection with an application for a fare increase in Chicago, the Illinois Public Service Commission has been appealed to by the city to eliminate a part of this capital investment in case an increase in fares were granted. Inasmuch as the company was asking for the abrogation of its contract, they insisted, therefore, that the city had a right to ask for a rate of fare based on the just value of the property.

The commission made an investigation and eliminated \$44,100,756 from the company's capital investment of \$156,481,859, showing that even to-day, in Chicago, the company is carrying an excess burden of capital investment.

Mr. LAUCK. Of about 30 per cent.

Mr. JONES. Now, as to Pittsburgh: The financial and operating conditions in Pittsburgh are complicated and confused. There appears to have been no real comprehensive survey made of the Pittsburgh financial management in the past. The main recourse we have is the data prepared by Mr. E. K. Morse, who was city transit commissioner, and reported to the city council in December, 1917.

He reports at that time a total capitalization of \$142,067,900 for a part of the system and \$18,812,500 for the rest, a total of \$160,882,400, or a capitalization per mile of track of \$271,000.

Now, there has been no valuation of the Pittsburgh railways prior to August of this year, when a commission appointed 18 months before by the Pennsylvania Public Service Commission to make a valuation of the property reported its findings to the commission. This commission was made up of two men representing the city and two men representing the company, all engineering experts. The two men representing the city reported the fair value of the property for rate-making purposes to be \$48,000,000. The company's representatives found the property to be worth from \$60,000,000 to \$65,000,000. On the basis of a comparison of the average of these two reports, with the total capitalization as reported by Mr. Morse, there is an inflation of 66 per cent.

Mr. LAUCK. How are the Pittsburgh companies operated? Is there not a holding company or two holding companies?

Mr. JONES. There are consolidations and holding companies and leases and everything else.

Mr. LAUCK. There are two holding companies and then another operating company, are there not?

Mr. JONES. Yes. Mr. Bion J. Arnold—

Commissioner MAHON. Did you say there are a number of operating companies in Pittsburgh?

Mr. JONES. No; at present there is only one operating company.

Commissioner GADSDEN. With reference to Pittsburgh, do you happen to know whether it is earning a fair return on even \$48,000,000?

Mr. JONES. I have not gone into that. All I know of that is what this commission reported. It reported in substance—I would not care to quote what the commission said except that it would require

a higher fare than 5 cents—I think 7 cents in one case and 8 cents in the other case—to carry these valuations reported by the two sets of experts. I think it was 7 cents and 8 cents that would be necessary on those bases to carry the property and pay a fair rate of return.

Commissioner SWEET. Was there any arbitration or method of compromise between the \$48,000,000 and the \$60,000,000 estimates?

Mr. JONES. No.

Commissioner SWEET. They stand there as two independent estimates?

Mr. JONES. The representatives of each party reported independently.

Commissioner SWEET. And they never got together by any form of compromise or arbitration?

Mr. JONES. No. That is, of course, very recent, and I suppose that is up to the public-service commission to decide.

The CHAIRMAN. Have you a copy of the report made by the commission?

Mr. JONES. I have nothing more than a brief and report. I have been unable thus far to get the complete report.

The CHAIRMAN. We will have a copy of the report filed with us.

Mr. JONES. Presumably, you will; yes. I should say that in 1910 Bion J. Arnold, of Chicago, following a survey of the property for the city, expressed the opinion that it could be reproduced for about \$55,000,000, or around \$100,000 per mile.

Commissioner SWEET. Are you now returning to Chicago?

Mr. JONES. No; this is Pittsburgh. The judgment of the value of the property held by Mr. Arnold you can see very closely coincides with that of the commission.

Mr. LAUCK. This report of the transit commissioner is available and you can submit it to the board, if the chairman so desires, can you not?

Mr. JONES. It is not available. I secured that at New York with a great deal of difficulty and was not even allowed to take it away with me.

Mr. WARREN. Which report is that, Mr. Lauck?

Mr. LAUCK. The report referred to by the chairman. The former secretary of the commission just told me that it was available, and I think we can get one. I think probably you did not tap the source. But, anyhow, that is a minor point.

Mr. JONES. St. Louis has been for several years a focus of a great deal of street-railway agitation of one kind and another. In 1911 and 1912 the St. Louis Public Service Commission—that was the city commission, later legislated out of existence by the State commission—made a valuation of the company's property in the city and found the same to be \$37,638,667. The commission reported the capitalization as shown by the committee's books to be \$101,380,200, divided as follows: Capital stock, \$41,900,300; bonds, \$59,480,000.

The excess of capitalization over fair value or the inflation was \$63,741,632, or 62 per cent. The capitalization per mile of track was \$222,000. The value per mile of track on the basis of the commission valuation is \$81,645, which the commission declared to be very liberal, especially when considering the fact that 110 miles of

track was suburban construction and that the company buys approximately 45 per cent of its power. The commission commented very caustically upon the methods of the company in handling its financial affairs and the newspapers, the St. Louis Civic League, and other organizations later got into the game and did the same.

In 1917, James E. Allison, of St. Louis, who was the engineer member of the St. Louis Public Service Commission and who was in charge of the valuation of 1911-12, made another appraisal of the property as of December, 1917, on behalf of the city. At that time he found the actual cost of the property to be \$48,784,491.

The CHAIRMAN. The actual original cost?

Mr. JONES. The actual cost of the property, meaning the book value or the cost as ascertained from a study of the books, is my understanding. There is much interesting material in that St. Louis situation which we will pass over here for lack of time.

Now, as to Baltimore, this is a short story:

The capitalization of the United Railways & Electric Co. of Baltimore in 1919 as reported by the company was \$85,246,200, a capitalization per mile of \$205,400.

Now, no valuation of the Baltimore company has ever been made and probably never will be made, owing to the fact that the public-service commission statute requires the commission to recognize the mortgage indebtedness of the company in valuing the property for rate-making. And the bonded indebtedness alone is held to be very much in excess of the actual value of the property.

The percentage of the capitalization of the company in the form of funded debt is very high, 76 per cent.

In a brief filed with the court of appeals in behalf of the city of Baltimore in 1919 a statement was made that the common stock, then in excess of this \$8,000,000, was almost wholly if not wholly water. The following bit of history contained in a circular issued in 1906 by Hamilton & Co., investment bankers of Baltimore, Washington, New York, and other places, is cited in the city's brief as possibly explaining in some measure why this was so.

Hamilton & Co. said:

We saw the Baltimore Traction Co. with its \$5,000,000 of capital stock which sold at nearly nominal figures grow to such an extent that it was able to pay a dividend on this stock. We saw its \$5,000,000 of capital stock made \$10,000,000 by the consolidation of the city and suburban companies, and we saw this company pay dividends on \$10,000,000 capital stock. Not only so, but we saw this stock with a par value of \$25 taken into the consolidation which forms the present United Railways & Electric Co. at \$37.50 per share in cash. Of course, it must be admitted that there was a large overcapitalization when the United Railways was formed, but so great has been the increase in the earnings of the United Railways that the company has outlived its overcapitalization and will shortly be on a basis as it can safely pay dividends on its stock.

The Northeast Baltimore Improvement Association in 1914 made an investigation and reported its conclusion that there was \$16,700,000 of overcapitalization on the basis of the value of stocks and bonds at that time.

The Indianapolis Street Railway Co.: Here is a long story and an official story which we will have to boil down. This story is all told practically by the Indiana Public Service Commission itself.

The capitalization of the company is \$25,200,000, or \$177,300 per mile. In December, 1918, the Indiana Public Service Commission,

following an investigation of the company's financial history and property, found that the property was worth not to exceed \$15,000,000, or \$106,400 per mile. This shows an inflation of \$10,000,000, or 40 per cent. This investigation was made on the basis of an application of the company for an increased fare.

Now, there were several interesting results of that investigation——

Mr. LAUCK. I would not go into that, because we just want to establish the general character of the inflation.

Mr. JONES. The main thing which is of interest to this commission and the public is this, that the commission in the end coerced the company into reorganizing its finances in various ways, by which it cut down its fixed charges to the extent of \$420,000. In addition to that, the commission compelled the company to put in effect some schemes of more efficient operations and economies and the result of that was that the company came into the commission and said it was satisfied under the new conditions that it could continue to operate upon a 5-cent fare.

That is the final word from Indianapolis.

Mr. LAUCK. Have you any general index of overcapitalization, like a comparison with the Massachusetts——

Commissioner GADSDEN. What company was that? I missed the name of that company.

Mr. JONES. That is the Indianapolis Street Railway Co.

Mr. LAUCK. I thought we had a number of representative instances, and if you could give us them as to the general extent, or probably the commission could——

Mr. JONES. I have, in conclusion, a few lines, as I have in the beginning, something referring to that.

San Francisco is a short story. There is a capitalization of \$79,100,000, representing \$290,800 per mile of track. There has been no official valuation of the San Francisco company. There is possible, however, a comparison and an interesting one. The city owns and operates 58 miles of street railway, which has cost it a total as of June 30, 1918, of \$6,499,480. This is a cost per mile of track of \$110,500, as compared with a capitalization per mile of track of \$290,800 on the basis of the capitalization of the property. On the basis of comparison the United Railways Co. is overcapitalized 62 per cent.

Mr. WARREN. How much did you say the Municipal was a mile?

Mr. JONES. \$110,500.

Commissioner SWEET. Did the city build that track or was it purchased?

Mr. JONES. The city built the track under the direction of the city engineer.

Commissioner SWEET. That was the actual cost?

Mr. JONES. That was the actual cost. The Rhode Island Co., of Providence, has a long, involved story. The commission has heard much and I will give this very shortly.

The special committee for the investigation of the affairs of the company, appointed by the Rhode Island Legislature of 1917, reported in March, 1918, that the total value of the property owned and controlled by the company was \$29,000,000, equivalent to \$80,000 per mile.

Commissioner SWEET. What city was that?

Mr. JONES. That was the Rhode Island Co., of Providence.

This represents an inflation of 42 per cent on the basis of the company's capitalization.

As to the involved and interesting stories back of all that, I think the commission is not interested.

Mr. LAUCK. You have cited a number of typical instances. I thought we might save time if you made some general statement, as you have on your comparison of the Massachusetts mileage, the exhibit being in such good form for the commission to read, unless the commission wishes to go into the detailed instances further.

The CHAIRMAN. Does the exhibit which you have filed here, Mr. Jones, contain in more elaborate form all of the testimony you have given as to the particular lines?

Mr. JONES. Yes.

There is one error in that exhibit, in connection with Oakland Terminal Street Railway Co. I state there that the inflation of capitalization was 70 per cent. That was a typographical or some other error. It should be 40 per cent.

The total capitalization of all the street-railway properties in the United States, as shown by the census report in 1912, was \$4,708,-568,141, or \$104,930 per mile.

The only basis of comparison we can use is this official report of the situation in Massachusetts, where the composition of street-railway companies has been more or less hedged in by restrictions of the law.

The capitalization per mile in Massachusetts in 1912 was \$57,786, as against the average of \$104,930 per mile for the rest of the United States.

There are statements coming from the Public Service Commission of Massachusetts which show that in many cases there was overcapitalization in that State.

Mr. LAUCK. That is, that is a conservative figure, because it represents capitalization through previous consolidation there, is it not?

Mr. JONES. Largely through consolidations and the exchange of strong stock for weak stock and excess construction costs.

Mr. LAUCK. So that it is a very conservative figure, because it does include the element of water itself, and as compared with the country as a whole it represents what percentage, you might say, of excess in Massachusetts over the country as a whole?

Mr. JONES. The excess in Massachusetts is about 20 per cent according to the census statement.

Mr. WARREN. Excess of what?

Mr. JONES. Excess of valuation.

Mr. WARREN. In Massachusetts?

Mr. JONES. Yes.

Mr. WARREN. What do you base that on?

Mr. JONES. I think that is the statement of the figures of the commission. I may be wrong on that.

Mr. WARREN. I think you are, Mr. Jones.

Mr. JONES. But the figures speak for themselves at any rate; they are official.

Mr. LAUCK. You are talking about Massachusetts itself. But comparing Massachusetts, its percentage of inflation, with the country

as a whole you have for the country as a whole a large excess per mile over Massachusetts, have you not?

Mr. JONES. Very large.

Mr. LAUCK. \$57,000 as compared with \$104,000 per mile?

Mr. JONES. Yes.

Mr. LAUCK. What is the significance of all of this overcapitalization, to whatever extent and from whatever cause it may arise in the past, as bearing on the question of the employees of the company?

Mr. JONES. Overcapitalization, of course, has intimate relation with many of the aspects of the street-railway situation, but especially toward that of labor.

With excess capitalization, the interest of the investor always in mind, the question of credit uppermost at all times, with the absolute necessity of squeezing out revenue sufficient to keep up credit and to pay dividends on this capitalization as a means to keep up credit, labor, of course, has suffered during all times.

Mr. LAUCK. In other words, the operating results being hypothecated, so to speak, by fictitious issues of capital, if that capital is to be maintained in its market values, that means an absorption of revenue which would otherwise be available for the payment of increased compensation, does it not?

Mr. JONES. Exactly.

Commissioner GADSDEN. I would like to ask Mr. Jones just on that line—These charts which you have introduced, Mr. Jones, show that the capitalizations in Maine and Massachusetts are the lowest in the country. Following the question that Mr. Lauck asked you, I would like to ask you this: Have the railway employees in Maine and Massachusetts, the States where the capitalization was within speaking distance, at least, of the value, fared any better than the employees elsewhere in the United States?

Mr. JONES. I can not answer that, Mr. Commissioner. That is not my field of investigation in the street-railway industry.

Commissioner GADSDEN. Supposing that it should appear, as it does appear, that the street-railway employees of Massachusetts enjoyed the same rate per hour as those of New York or Chicago, where the capitalization was very much in excess, would not that affect the soundness of your answer to Mr. Lauck?

Mr. JONES. I would not want to answer that, sir. As I say, I have made no study into the actual industrial part of the street-railway question. I am not competent to answer that. I am answering this question of Mr. Lauck's on the basis of a correct theory and common sense, not from intimate knowledge.

Commissioner GADSDEN. I am not trying to take issue with you, but I am trying to elaborate that thought. That thought on your part is that if the capitalizations had been proper, we will say, then the employee would have benefited and would have received a higher wage scale than he has received, which would seem to be sound.

Now, I call your attention to the fact that, in the two States of Maine and Massachusetts, where the capitalization is admittedly sound, we will say, that has not resulted. As a fact, I tell you that it has been testified before this commission that those employees have not benefited.

Now, I ask you, does not that affect the soundness of that conclusion?

Mr. JONES. I would not want to say that it did or that it did not. I am not competent to answer that. I have merely my own idea.

Mr. LAUCK. You can answer that hypothetically, can you not, Mr. Jones, in the same way that you answered the other question? I do not want to be put in the position of answering it myself, but—

Commissioner GADSDEN. You answer it, Mr. Lauck.

Mr. LAUCK. I think you have to assume other conditions. That is, the point Mr. Jones and I were making was that if you did not have the overcapitalization, the earnings which were produced would be evidently available, either for the benefit of the public or for the benefit of the worker on the railroad; if the worker had sufficient organization to, so to speak, through negotiation with the management, get his share, it would be evident that there was a share coming to him, and he would get it.

Evidently in Maine—I do not know the condition of the Amalgamated Association in Maine, but it may be that they are not strongly organized there, and have not been able to get what is coming to them. But in Boston they have got it, through strong organization, and in Chicago, despite the fact of overcapitalization, which has resulted, as we all know, in certain conditions in Boston from the standpoint of the public which otherwise would not have resulted.

Commissioner GADSDEN. Another question on that line I would like to ask—

Mr. WARREN. Pardon me just a moment. You did not mean there was overcapitalization in Boston, did you, Mr. Lauck?

Mr. LAUCK. I really do not know.

Mr. WARREN. I did not understand Mr. Jones to testify that there was any overcapitalization in the Boston company.

Mr. JONES. No; I spoke merely of Massachusetts.

Mr. LAUCK. Massachusetts, the Bay State, I think he has in mind.

Mr. WARREN. I think when you put your finger on the Bay State you put it on the only case in Massachusetts of that kind.

Mr. JONES. I have a statement here, concretely, of the Bay State situation. I think that is the Bay State case—that is where the 20 per cent was.

Mr. WARREN. Yes; I think you are quite right.

Commissioner BEALL. Did I understand you, a few minutes ago, to say that in San Francisco the capitalization of the private company was something like \$200,000 a mile, and the Municipal Railway, built by the city, about \$80,000 or \$100,000?

Commissioner SWEET. \$110,000.

Commissioner BEALL. \$110,000?

Commissioner SWEET. Yes.

Commissioner BEALL. I wanted to ask you this: Do you know whether the capitalization of the private company is partly due to the fact of the destruction of a large part of their property in the earthquake? Didn't they have to replace a large part of their property on account of its being destroyed, and did not that very materially affect their present capitalization?

Mr. JONES. I think you are right on that.

Commissioner BEALL. I do not remember, but was not the city railway built after that?

Mr. JONES. Yes.

Commissioner BEALL. I do not think they went through that?

Mr. JONES. No.

The CHAIRMAN. What does the witness know about that?

Commissioner BEALL. Do you know if that is true? Does not that account, at least partly—

Mr. JONES. I know that is true with the Municipal Railway—that it was built subsequent to the earthquake.

Commissioner MEEKER. In its entirety?

Mr. JONES. Yes.

The CHAIRMAN. Do you know how much additional capitalization was made by the old company on account of the earthquake?

Mr. JONES. I do not.

Commissioner BEALL. Is it not true that for just one thing alone—I do not remember yet, and I do not state this as a fact, but I think—just for equipment and a few other things, at the request of the city, they spent \$5,000,000, just in one sum, for one thing, just to replace things that were gone? They had no other way of doing it.

Mr. JONES. I did not state the worst situation in San Francisco.

Commissioner BEALL. What is that?

Mr. JONES. I did not state the worst phase of the capitalization story in San Francisco.

In 1913 Mr. Bion Arnold, who made a survey of that situation, reported a capitalization as of March, 1913, to be \$85,000,600. That was equal to a capitalization of \$360,000 a mile at that time. In this other case it was \$290,000 a mile.

Commissioner BEALL. As I say, what I did not know was—and I thought, perhaps, having studied it, you might remember—is it not true that a large part of that capitalization is due to rebuilding the property on account of the earthquake?

Mr. JONES. I think there is no question about that.

Commissioner BEALL. I think it accounts for some of the difference between that and the cost to the city.

Commissioner MAHON. Do you know that to be a fact that you are speaking of, Mr. Jones, or is that just your notion of it?

Mr. JONES. I have been, quite a good many years ago, quite familiar with the San Francisco situation. I have not refreshed my memory in the last six or seven years, but my recollection is there was a large expenditure following the earthquake for rehabilitation.

Commissioner MAHON. Do you know that, following the earthquake, the company secured the right to put the trolley on, instead of the cable, at a big saving to the company? Do you remember that? Are you familiar with that?

Mr. JONES. I could not answer that. But of course the development of the trolley has come in San Francisco out of the cable.

Commissioner MAHON. I happen to be familiar with the whole thing, Mr. Jones, and the questions you are answering there I wanted to get into the record correctly for the benefit of the commission. You said that you thought that was true. Now, I ask if you were familiar with the fact?

Mr. JONES. I am not familiar with it, no.

The CHAIRMAN. If you are familiar with that fact, Mr. Mahon, will you please state it for the record?

Commissioner MAHON. Just prior to the earthquake the company were attempting to do away with the cable roads and put on their trolley lines. The matter was up before the council, and when the earthquake came on, then followed the reconstruction, and the company secured, through the council, the right to put on their trolley lines instead of cable lines, which we all know are very much more costly in construction and operation.

Out of that grew the bribery cases for which Abe Rouf did time in San Quentin Prison, and on account of which Mayor Smith was thrown out of office, and all of that corruption came to a head at that time and grew out of the accusations of bribes in connection with the San Francisco electric railways as handled by Mr. Patrick Calhoun and his people—the trial of Mr. Calhoun and all of that followed that reconstruction period.

The municipal lines of San Francisco were constructed by the city purchasing what was known as the Geary Street property. Geary Street was a separate company, independent of the San Francisco Railways Co. In fact, there were two independent companies, California Street and Geary Street. There were some connections between California and the old company, but they were separate companies.

The city purchased the Geary Street road as it was then in operation, a cable road, took it over, took the cables out, tore up the entire system, the tracks and all, and rebuilt the present electric road. That was the foundation for the present municipal road that has since been extended out to Golden Gate Park and in other directions in the city.

That is my recollection of the story of that situation.

Mr. LAUCK. That is all, unless some members of the commission have some questions.

Mr. JONES. I might add, in conclusion, that the exhibit contains the following other cities: Los Angeles, Denver, Philadelphia, Cleveland, Oakland, Calif., New Orleans, Washington, Lincoln, Nebr., Milwaukee, Scranton, Pa., and the Bay State Co. of Massachusetts.

The CHAIRMAN. And those statements affecting all of those companies are in your exhibit?

Mr. JONES. Yes.

The CHAIRMAN. Does that conclude your formal testimony?

Mr. JONES. Yes.

Mr. LAUCK. If the commission will permit, I would like to take the stand and go briefly over our case.

The CHAIRMAN. The commission has some questions to ask Mr. Jones on cross-examination before that.

If I am able to view your testimony correctly, Mr. Jones, it relates entirely to the overcapitalization.

Mr. JONES. Yes, sir.

The CHAIRMAN. And from your study of the street-railway situation have you found that that is a general tendency among the companies throughout the country?

Mr. JONES. I have.

The CHAIRMAN. Do you know of any exceptions to the general rule?

Mr. JONES. There are exceptions in degree.

The CHAIRMAN. What do you mean by that?

Mr. JONES. That is, in degree of overcapitalization.

The CHAIRMAN. Do you mean that there are no companies that have not been overcapitalized?

Mr. JONES. I know of no instance where there has not been some overcapitalization. Now, there may be, but they have not come to my knowledge and within my studies.

The CHAIRMAN. How general has been your investigation?

Mr. JONES. My investigation has been general of the financial situation up to this particular study, and at this time I would not care to go outside of this particular investigation.

The CHAIRMAN. My question deals wholly with the question of overcapitalization.

Mr. JONES. Yes.

The CHAIRMAN. How do you proceed to make such an investigation?

Mr. JONES. I can answer that by saying how I made this investigation.

The CHAIRMAN. Very well.

Mr. JONES. I went to New York and secured first the loan of the complete library of Dr. D. F. Wilcox and worked in his library for some three or four weeks. In addition to that, I went through the material in the library of the Public Service Commission of New York, the Municipal Reference Library, at the office of the American City. In addition to that, I made a study into the material in the Municipal Reference Library in Baltimore, and then I drew on the facts contained in Moody's Manual to check up. In this material which I went over were reports of investigations going back as far as 1900, and even further back, and many others more recent. I also went into the reports of the State public-service commissions wherever any such report was available dealing with the financial situation. Then I made a study of all valuations—the official valuations that have been made on street-railway companies in recent years; all agreements by arbitration; valuations made under the direction of cities, and any other material bearing on the subject.

The CHAIRMAN. How many companies did you study?

Mr. JONES. Approximately 20 companies.

The CHAIRMAN. Do you know how many companies there are in the country?

Mr. JONES. I could not answer it offhand.

The CHAIRMAN. I think it has been reported here that there are some 1,200.

Mr. JONES. I think I explained, Mr. Elmquist, at the start, that I took only those companies where it was possible to draw fair conclusions on the basis of official valuations. I kept away from those cities where there might be obvious cases of flagrant overcapitalization, where there was an absence of some means of checking that capital investment.

The CHAIRMAN. Now, if you had confined your studies to 20 companies, is it fair for you to say that, generally speaking, the street railways of the country are overcapitalized?

Mr. JONES. I think those companies are representative. There are two that I did not bring in for lack of time. One was Portland, Oreg., where there has been a valuation by the State commission, and the other instance is in Cincinnati, where there was an agreement.

Commissioner GADSDEN. Have you the figures of the Portland road with you?

Mr. JONES. I have not them with me; no.

Commissioner GADSDEN. Because I have them here as reported previously in this investigation to the commission. The Portland Railroad, with 106.9 miles, the valuation fixed by Sloan, Huddle, Fuestil & Freeman, employed by the State, \$6,262,966, exclusive of the going value——

Mr. JONES. That is Portland, Me., Mr. Gadsden.

Commissioner GADSDEN. Yes.

Mr. JONES. I was speaking about Portland, Oreg. I think my study covered every city in the United States with the exception of Cincinnati and Portland, where the official valuation has been put out or anything approximating an official valuation.

The CHAIRMAN. From that study have you found that the official valuations exceed or are less than the capitalization?

Mr. JONES. In every study which I have made the official valuations as made are less than the capitalization of the companies. There is one case which I have——

The CHAIRMAN. Have you ascertained whether there has been a tendency in recent years to overcapitalize these plants?

Mr. JONES. I have not made any study of that. I am not competent to answer that question.

The CHAIRMAN. Do you believe, then, that this subject of overcapitalization represents rather ancient history in the street-car world?

Mr. JONES. I think probably that is so, but I am not prepared to answer it absolutely.

The CHAIRMAN. Has this overcapitalization been brought out more effectively in mergers and consolidations than by any other method?

Mr. JONES. I could not answer that. I have made no comparative study of the results by each method of overcapitalization.

The CHAIRMAN. Are you able to say whether overcapitalization has resulted in greater burdens to the public through fares paid?

Mr. JONES. I can not answer that absolutely.

The CHAIRMAN. Are you able to say that through overcapitalization promoters or others have been able to reap large profits?

Mr. JONES. I think the records will show that abundantly.

The CHAIRMAN. What has been the prime motive for this overcapitalization?

Mr. JONES. To get rich quick on the part of certain insiders. The street-railway industry of the United States unfortunately has been dominated not by motives of public service but by motives of private profit. In other words, street-railroad companies have been made the medium of amassing large profits for certain insiders in the business. The public-serving motive has been subordinated.

The CHAIRMAN. Are you able to state whether the promoters or those who engaged in overcapitalization held the stock to any great extent?

Mr. JONES. I can not answer that. I think a more intimate study will show that in large numbers of cases they got the profits and got out and loaded the burden upon the so-called innocent investor. I think that is an axiom of the financial history of street railways, and well understood.

The CHAIRMAN. Does the public generally know when a property is overcapitalized?

Mr. JONES. I do not think they know it so much as they instinct it.

The CHAIRMAN. Then what is the effect of that knowledge upon their state of mind?

Mr. JONES. It is to create suspicion, distrust, and antagonism, and particularly to make it impossible for the public to cooperate wholeheartedly with the companies to make their management successful. And that affects employees as well as the general public.

The CHAIRMAN. How does that affect the employees, Mr. Jones?

Mr. JONES. It affects the employees a good deal as it affects the public. The employees are only a part of the public. Their psychology is the same as the general public. The methods of the managements have been such as not to draw out the best that is in the men, with exceptions as to companies; not to invite their cooperative interests in the operation and success of the property, but to use them to the limit for the purposes of making profits to the investor. Now, I think employees generally recognize that.

The CHAIRMAN. I presume the men feel that if the public knew just what the value of the plant is that there will be no trouble in having a rate fixed which would bring in a fair return upon that property and also a fair wage to the employees.

Mr. JONES. I can not answer that question, Mr. Chairman.

The CHAIRMAN. There are a great many of the States whose laws provide for the regulation of capitalization. Have you found in your studies that any of these companies have been permitted to issue watered stock since the commissions undertook to regulate their securities?

Mr. JONES. Mr. Chairman, that is a special study. Statements have been made on both sides of that question covering the last two or three years, and I have not made a special investigation of that phase of the subject and am not competent to answer it.

The CHAIRMAN. In the study of this particular subject, have you reached a conclusion as to the proper method of controlling the capital issues of these companies?

Mr. JONES. I have not.

The CHAIRMAN. But you believe they should be subject to strict regulation, do you?

Mr. JONES. Assuredly. Mr. Chairman, you are now, I think, encroaching somewhat upon my personal ideas, and I have ideas on that subject based on considerable thought and study, but I would not care to express them here, because they are not a part of this case.

The CHAIRMAN. I was trying to confine my cross-examination, Mr. Jones, strictly to your testimony this morning and having in mind the relationship which you occupy, and I will not attempt to go beyond that. I understand that you are willing to appear before this commission and present such general views as you have upon the whole subject?

Mr. JONES. If the chairman thinks they would be of any value to the commission, I would be pleased to do it.

The CHAIRMAN. You may hold yourself in readiness for that, Mr. Jones. Well, do you feel that the subject which you have discussed here this morning is of vital importance to the employees of the companies or, to put the question in another way, do you believe the correct solution of this question of capitalization is of vital importance to the employees?

Mr. JONES. I think it is of prime importance to both employees and the public.

Commissioner SWEET. I notice on page 178 you give the statement of Mr. Ignatius with regard to overcapitalization or watered stock. I want to ask you whether you know of any other form of overcapitalization besides those mentioned here by Mr. Ignatius.

Mr. JONES. I think I have answered that, Mr. Sweet, in my original statement which I made to the board. I have covered various forms or methods of overcapitalization which, I think, Mr. Ignatius has not referred to.

Commissioner SWEET. Take the case of the San Francisco company, mentioned by Mr. Mahon, starting as a cable road. Suppose a road that started as a cable road in a hilly city, legitimately and properly, had no watered stock, every dollar that was issued in the form of stock was legitimately put into the enterprise, and it was afterwards found that the electric system would be more economical and preferable, and it was changed over at considerable expense; the actual money invested would be materially larger, would it not, than if it had been built as an electric road on the start?

Mr. JONES. Yes, sir.

Commissioner SWEET. Would that, in your opinion, be a case of overcapitalization?

Mr. JONES. Of course, there is involved, Mr. Sweet, an aspect of valuation on which very able men disagree; that is, the question of how to handle superseded property in capital investment. I should not want to discuss that question except as an individual and from my own personal point of view. It has not been a part of my present study.

The CHAIRMAN. You will discuss that subject later on?

Mr. JONES. That calls for a personal opinion. I have tried here to present the facts of overcapitalization. That has been the main purpose of this study—to present the facts of overcapitalization and not go into the theories or what constitutes proper capital investment or what are the proper methods of valuing properties.

Commissioner MEEKER. May I ask a question there, Mr. Sweet? You stated certain facts as to the capitalization of the San Francisco street-railway lines. How can we interpret those facts unless we have all the information available as to why the capitalization is \$290,000 per mile in the case of the privately owned companies as against \$110,000 for the publicly owned lines? It seems to me, Mr. Sweet is pursuing an absolutely correct line of questioning. It is not a matter of personal opinion, but a matter of furnishing us with the facts.

Mr. JONES. I can answer that question in some of these cases by the financial statements from the public-service commissions. They

give their reasons very strongly in some cases why they believe the concerns are overcapitalized and how it was done. I would be glad to go into any case of that sort if desired.

Commissioner SWEET. Mr. Jones, the point I have in mind is this: I think you have given the impression that where there was a difference between the actual valuation of the property as made by a public-service commission, for instance, or in some proper way, where that was very much less than the capitalization of the company, I think you have already given the impression that there was dishonesty or some sort of conduct that was reprehensible, at least on the part of the corporations necessarily. Now, what I am asking you is whether there may not be a material difference in the actual valuation of a railroad property and its capitalization without dishonesty and without injustice to the public.

Mr. JONES. There may be such cases—

Commissioner SWEET. Or the employees.

Mr. JONES. There may be. I have specific instances here and official statements of the reverse. There may be cases where they should not be criticized on that score, where there may be good reasons for apparent overcapitalization.

Commissioner SWEET. As a matter of general information—and I think the public are fully advised on that point—a great many corporations issued stock and gave it away with the bonds that they sold and the incorporators took the common stock and sold it where they could and, as you have said, got out from under and got it in the hands of individuals who might be considered as innocent purchasers. At the same time it is also true, I think, that in most of these cases that you have cited there is also another element which might be called overcapitalization that does not involve dishonesty; and when you take your method of comparing actual valuations with capitalizations, that you do not make, and in your evidence given to us you have not made, a distinction between the overcapitalization so-called—between that which is legitimate and that which is not legitimate, have you?

Mr. JONES. In many of those cases the responsibility would be upon the valuation officials. If there was any merit in those claims of the company, they would have been recognized by the appraising officials.

Commissioner SWEET. You have not told us how these valuations are made. Are not most of them or many of them made on the physical valuation of the properties as they stand?

Mr. JONES. In cases where there were official valuations they were made just as all valuations are made—

Commissioner SWEET. They are not all made alike, are they?

Mr. JONES. No; in accordance with certain rules which have been laid down by the courts, in accordance with the individual practice of the commission and in accordance with the judgment of the individual engineer. There are no two valuations in the country that are alike. The same details as to principles have not been followed in any two valuations so far as I have been able to discover.

Commissioner MEEKER. Is it worth while trying to arrive at the value of a property by the method of valuation?

Mr. JONES. I do not get that point, Mr. Meeker.

Commissioner MEEKER. You state that no two valuations are alike—

Mr. JONES. Absolutely alike—in the method of reaching the valuations.

Commissioner MEEKER. You think that they are, on the whole, trustworthy?

Mr. JONES. Yes; but they represent varying judgments of men. One set of appraisers will emphasize one set of principles, another set of appraisers will emphasize other principles and make one principle dominant and another subordinate.

Commissioner MEEKER. Pardon me, Mr. Sweet, I did not want to interrupt your questioning.

Commissioner SWEET. Unless you knew the basis of valuation it would not be, would it, a fair comparison upon which to base a charge of dishonesty? In other words, if there is dishonesty, should it not be shown in some other way?

Mr. JONES. I do not like to use the term "dishonesty."

Commissioner SWEET. I am speaking of considering watered stock, the issuance of stock for which there has not been value paid—dishonest—putting it in that form.

Mr. JONES. I think we may assume that the official valuations that have been made have been fairly and honestly made, and that they represent approximately the value of the property.

Commissioner SWEET. Present value?

Mr. JONES. The value at that time of that property.

Commissioner SWEET. At the time it was valued?

Mr. JONES. By one method and another. Either reproduction-cost method or the historical method.

I think we have a right to assume that those valuations are approximately correct, in most cases, and that we, here, can take those valuations as a proper basis of the value of those properties.

Commissioner SWEET. And if the capitalization of the company is very much in excess of the valuation that is found in the way you speak of, does that necessarily prove that there was water in the stock?

Mr. JONES. I think that gives one the right to the strong inference that there have been some unfair methods in the past.

Commissioner SWEET. We know that in many cases there have been unfair methods such as you speak of, and yet the question that I am asking you bears upon the point as to whether the kind of evidence you have been giving us necessarily proves the point that you are making; in other words, whether it would not be possible, by reason of transfers from the cable system to an electric system, or other forms of obsolescence—to use a term that is often used in this connection—whether it would not be possible that the difference between capitalization and valuation might exist without any watered stock at all?

Mr. JONES. From my knowledge of valuations of street railways, I should say that the intangibles, the intangible values, have been adequately recognized in practically every case and that the item of superseded property, of which you are now speaking, has been given proper recognition.

Commissioner SWEET. Then it is your conclusion, is it, that if there is a difference between valuation and capitalization, it proves that there has been watered stock?

Mr. JONES. There is an inference there that something is wrong in the financial management of that company in the past. Just an instance, speaking of the San Francisco situation—Mr. Arnold calls attention to this—here is another mooted question in the valuation field: He refers to the fact that bonds held in reserve to the amount of \$5,409,000 for future additions, betterments, and acquisitions, were sold at price approximating 73 per cent, and the discounts capitalized as a charge to betterments.

That opens up another theory of valuation as to where you will place—to what account you will charge—the discount. There is a very large discount, an unusually large discount. Now, shall future generations of car riders carry that burden?

Commissioner GADSDEN. Where would you charge it—discount on bonds?

Mr. JONES. I would charge it to operation—I think I would not want to go into that—that is a personal matter. That comes out of my own personal study. It is not a part of this study.

Commissioner GADSDEN. My question is perfectly fair, I submit. You have introduced the question. Now, what is going to be done with the discount to a bond? Are you going to capitalize it, or charge it to the present car rider?

Mr. JONES. You have one theory; I may have another; the next man may have another.

Commissioner GADSDEN. Your theory is all right. Let us know what it is. Would you charge it to the present car rider?

Mr. JONES. Well, I do not know that my theory on that is made up. I think I am not prepared to answer that. I would want to give it more thought, to give an absolute answer.

Commissioner GADSDEN. Well, I will waive that.

Commissioner SWEET. Without giving any personal opinion of the point that you object to expressing an opinion on, you will admit this, will you not, that that is another element which might create, and in many cases probably does create, a difference between capitalization and valuation?

Mr. JONES. Yes.

Commissioner SWEET. That does not necessarily indicate even dishonesty or a condition that is unfair to the public?

Mr. JONES. I think in every case the question of discount has been given full consideration by the appraisers of the properties.

Commissioner SWEET. Do you mean to say by that that you think the historical method of valuation has been followed in every instance?

Mr. JONES. No; in the reproduction of the properties, the matter of discounts has been given consideration.

Commissioner SWEET. Well, is the reproduction method adopted in all cases of valuation?

Mr. JONES. No. There is only one means of arriving at valuation.

Commissioner SWEET. Are there not valuations made in which reproduction is entirely ignored?

Mr. JONES. I think so.

Commissioner SWEET. Are there not valuations in which the history of the company and its capitalization, the sale of its bonds and all that sort of thing has been ignored?

Mr. JONES. I can not answer that. As to the other question, I think the system in Massachusetts has been to get at the value of the properties through investigation of the books.

Commissioner SWEET. Have you included in your investigation of this subject the Philadelphia Rapid Transit Co.?

Mr. JONES. Yes.

Commissioner SWEET. Do you find watered stock there?

Mr. JONES. The basic trouble in Philadelphia is the onerous terms of the underlying leases. There is almost an atrocious situation there, of enormous rental burdens, which the present generation are carrying, and can not get out from under; burdens running all the way from 12 to 72 per cent return upon the actual capital invested in the original properties. Then, on top of that, the Philadelphia company had \$30,000,000 of common stock, on which it is now paying 5 per cent return.

Commissioner SWEET. That \$30,000,000 was actually paid in, was it not?

Mr. JONES. I understand that was all paid in.

Commissioner SWEET. And what you object to there, from the viewpoint of the public is that the Philadelphia Rapid Transit Co., in leasing small lines that now enter into its system, is paying too high a rental?

Mr. JONES. It was improvident action. It took over a burden which should not have been loaded upon the company.

Commissioner SWEET. That you do not ascribe to the present management?

Mr. JONES. No, sir.

Commissioner SWEET. Which is good, is it not?

Mr. JONES. From my knowledge of the Philadelphia company, the present management, the management since 1911, is of a very high grade.

Commissioner BEALL. Is any of the overcapitalization that you refer to due, in your opinion, to what might be termed the cost of money? I mean by that, I think we all realize that if you are building a railroad or a factory or whatever it may be, and have not yourself all the funds required, you have to borrow money, just the same as you buy, beg, or steal any material entering into the construction; and that varies in its cost with the time and with the security that you can give; and, as a man of large experience, and coming from the West which, up to recent years at least, had to build up, and where rates of interest were higher, and it was harder to get investors to go at that time—I remember 30 years ago when it was very, very hard to get money for street railways or anything else, in the far West—suppose you were building in the West to-day, in a small community, a road that would cost \$1,000,000 and it was not an old community, and there was risk about it, and you found that you could get that \$1,000,000 if you issued a million dollars in bonds, but in order to get it, you also had to give away half a million dollars worth of stock to the people who bought those bonds. Would you consider that dishonest? Would you think it was better

to build that road and give employment to perhaps several hundred men to operate it, and construct it, or would you feel that it was better for the country and for labor to wait until that town had grown to such a size that you could borrow that money without giving any bonus for it?

In other words, is any of this overcapitalization that you refer to due to earlier times, where, in order to secure money for something that was not absolutely sure, in which it was hard to tempt men to put their money, more had to be given in the way of security than ordinarily would be the case?

Which was better—to wait until you could get that money at a reasonable rate, or to go ahead and give employment to hundreds of men and develop the country in that section? Has not that entered into it? You have lived in that country. Isn't it true that a good deal of that had to be done? Now, was it wrong? I know men hold different opinions on that, but—

Mr. JONES. I have lived in Massachusetts, too, and I have seen it develop there. The story of Massachusetts perhaps is the best answer.

Commissioner BEALL. In some of the eastern sections it was equally true, in the earlier days. I remember when people did not believe an electric railway could be successfully operated. As a matter of fact, the first ones all lost money. They were not a success.

Would you consider that dishonest, if, in order to give employment to labor and make a big public improvement to do something that would develop business and population and prosperity, suppose you do give more stock than the money that you actually take in? Suppose you have to give a bonus for your money? Is that wrong?

Mr. JONES. I could not answer that question without taking into account the motives of the men who were responsible for the inception of the movement. Their motives, in these cases, within my knowledge, were that they were engaged in a speculative enterprise for the purpose of making money, and that the public-serving motive was not the dominant motive.

Now, if it was, you could say that their action was improvident. If it was otherwise, then the risk is all upon them. It was a speculative enterprise for the purpose of making money, and if they took desperate chances I do not see how they should expect to load all that burden upon the public—that is, the mistakes of judgment and everything else involved—that it should be a burden upon the public forever. That is my view of it, that that should not be so.

Commissioner BEALL. Then you think it would be better, instead of paying the bonus for money, where it was necessary, to let the public go without street-railway facilities, or whatever it is, for many years, until the town or the community was so big, or until that method of transportation was so well established in other parts of the world that there could be no question as to its success? Do you think that is the best way to build up our country?

Mr. JONES. You confine your point to just one phase of this—where they were trying to build up the country. That is one instance; there are probably many instances, on the other side, where well-established companies have put out, down to the present

time, securities with more or less discounts which they have sought to charge to capital investment. Those discounts, in many of those cases, unquestionably were due to no fault on the part of the public. They were due to the past financial mismanagement of the companies. In other words, they had impaired their own credit by their overcapitalization and other methods of financeering by which they were unable to put out their securities at par.

Commissioner BEALL. You do not think that was true in every case, do you—that that was the reason?

Mr. JONES. No; I do not think it is true in every case; but there are large numbers of cases. I think that is the dominant situation of the companies, that they have impaired their own credit through the past financial management and seeking through the charge of discounts to capital investment to make the public carry it in the future.

Commissioner BEALL. I take it from what you say that you would rather see a community wait until it could borrow money at low rates for the development of a street railway, or whatever it might be, rather than pay a bonus for it and immediately give employment to labor and give the facilities to a town that would help build it up. Because you realize that under a good many conditions you can not borrow money without paying a bonus for it. You can not do it. It is impossible.

Mr. JONES. That is one of the defects of private management of public utilities.

Commissioner BEALL. A city has to do the same thing. I remember the day when our Western cities, even of large size, had to pay very high rates for their money for public improvements or anything else, and it was very hard for them to get it.

Now, would it have been better for those cities to have waited and done without those public improvements until they had grown to such size as they could get them on the same basis as cities in the East? Do you think that would have been a good thing?

Mr. JONES. I could not answer that without knowledge of the local situation in each case. Many of these roads were built where there was no necessity for it, and where now in some of those cases the rails are being taken up and the property junked.

Commissioner BEALL. Well, there was no necessity at the time for the building of the Union Pacific Railway, but don't you think it helped the growth of the West and the development of the country doing it? Don't you think it quickened it by 20 years? Don't you think the growth of your own town of Minneapolis and its adjoining community of St. Paul has been greatly helped by the street railway and other similar developments there during the past 20 years? Don't you think it has brought people and wealth and business to your town?

Mr. JONES. I have rather peculiar economic views as to the development of cities.

Commissioner BEALL. Your views are very interesting to us, Mr. Jones, because you have had the experience; you have been a public man—you have managed newspapers, and you have come in touch with public sentiment.

Mr. JONES. Economically, socially, I do not believe in large cities; I do not like to see them develop, so that it is pretty hard for me to get on the same basis of reasoning that you are.

Commissioner BEALL. I follow you.

Mr. JONES. I am opposed to every artificial means that will develop large cities.

I might, in this connection, call attention to a modern instance right along the line of what Mr. Beall is speaking of: The Minneapolis franchise which is now before the people for referendum contains a provision that when the city has the legal power to so do, it may loan the company money for additions, betterments, and expenses, or it may guarantee the securities of the company.

Now, the purpose of that is obviously to reduce the cost of new capital for the future development of the property. I think, so far as my own knowledge goes, that is a new idea in a public-utility franchise.

Commissioner GADSDEN. Have they had a valuation in Minneapolis recently as the result of these investigations and this new franchise?

Mr. JONES. We have had some four or five valuations—so-called valuations; a valuation by the company's engineers; a valuation by the city engineer; a check on the valuation of the city engineer made by Mr. Charles L. Pillsbury, who directed the valuation of the physical part of the Washington properties, street-railway properties; and then a valuation, rather superficial, made by a Milwaukee gentleman, at the instance of the mayor; and finally an agreement on valuation between the city council and the Minneapolis Street Railway Co.

Commissioner GADSDEN. How did those valuations compare with the capitalization of those companies, the Twin Cities Co.?

Mr. JONES. I did not use that instance, because it is not possible to ascertain the capitalization of the Minneapolis Street Railway Co. It is a part of the Twin Cities Rapid Transit Co., and there is no allocation of capitalization.

Commissioner GADSDEN. It is possible to approximate it, though, is it not?

Mr. JONES. No; I can not approximate capitalization. I can allocate the values of the system, but I can not approximate the capitalization, because I have no knowledge of it.

Commissioner GADSDEN. What was the valuation per mile of track in Minneapolis?

Mr. JONES. By which valuation?

Commissioner GADSDEN. The one made at the request of the mayor, say?

Mr. JONES. You must recollect that that mayor was a Socialist mayor and his interest was to get the lowest possible valuation.

Commissioner GADSDEN. Let us take that and then go up.

Mr. JONES. His valuation was about \$15,000,000 as I recollect.

Commissioner GADSDEN. How much was that per mile of track?

Mr. JONES. Two hundred miles of track, \$75,000 a mile, that would be it, would it not?

Commissioner GADSDEN. What was the highest valuation?

Mr. JONES. The company's valuation was about \$35,000,000. The city engineer's valuation was \$26,000,000, Mr. Pillsbury's valuation was \$23,500,000, approximately, and the agreement as to valuation, as of January 1, 1919, was \$25,000,000.

Commissioner GADSDEN. For how many miles of track?

Mr. JONES. Two hundred miles of track.

Commissioner GADSDEN. That is \$120,000 a mile?

Mr. JONES. Yes; but there are other considerations. The power plant of the whole Twin Cities Rapid Transit system is located in Minneapolis and is a part of the valuation. On a comparative basis probably about \$1,000,000 should be deducted for the value representing the value of the power plant representing the other parts of the system.

Commissioner GADSDEN. \$1,000,000?

Mr. JONES. Yes.

Commissioner GADSDEN. You still have approximately \$120,000 a mile?

Mr. JONES. About \$115,000 per mile.

Commissioner GADSDEN. Yes.

Mr. JONES. Another thing you must consider is the extraordinary physical condition of the properties of the Minneapolis property.

Commissioner GADSDEN. That is one good piece of property, is it not?

Mr. JONES. I do not think there is any better in the United States.

Commissioner GADSDEN. That is one good street railway?

Mr. JONES. Whatever the defects of management, whatever the defects of the company's attitude towards the public, its relation up to two years ago, at least, was to keep that property in the highest physical condition.

Commissioner GADSDEN. So that they are not all bad? There are some good ones?

The CHAIRMAN. Have you seen that property during the last year?

Mr. JONES. I have not been there for a year and a half to make any investigation of it.

Commissioner GADSDEN. Now, Mr. Jones, going back to the question of the relation between valuation and capitalization, there was introduced before this commission by the railway association a statement, or exhibit of 26 railways showing the capitalization in one column and the valuations in another. That statement I have here, and it shows that the ratio of capitalization to valuation of those 26 companies was 110 per cent. In other words, on the basis of these figures, the overcapitalization, if you choose to call it such, was only 10 per cent. I want to call your attention to some of those companies, and ask you whether you have had occasion to look into any of them. For instance, the Georgia Railway & Electric Co. reported here as 229.7 miles, valuation fixed by the Georgia Railroad Commission in August, 1918, at \$25,000,000; its capitalization is \$24,441,600.

The Denver Traction Co., 284.32 miles; the public-utility commission, December 31, 1917, before these high prices, fixed a valuation of \$23,674,000—I will read round numbers only—whereas the capitalization was \$26,000,000.

Now, the Chicago, North Shore & Milwaukee Railroad—

Mr. JONES. Just a minute. On the Denver situation, Mr. Gadsden, my figures as to capitalization show a total of \$29,799,375.

Commissioner GADSDEN. What is your valuation?

Mr. JONES. The valuation by the commission in 1918 is \$22,316,300.

Commissioner GADSDEN. This is December 31, 1917; \$23,674,000, and a capitalization of \$26,000,000.

Have you got the Georgia Railway there?

Mr. JONES. No.

Commissioner GADSDEN. We have had that testified to. Have you got the Chicago, North Shore & Milwaukee?

Mr. JONES. No; that is an interurban line. I did not go into any of the interurbans.

Commissioner GADSDEN. The testimony before us on that railroad was that it was 172 miles, and the valuation as of April 30, 1919, based on a valuation by Walker & Cressler, and subsequent capital expenditures—the valuation was \$13,500,000 odd, as against a capitalization of \$12,922,000.

Mr. JONES. I should want to know who made the valuations, whether they were official valuations or made by engineers of the company.

Commissioner GADSDEN. I am giving these in the same way as the others. I am only giving the testimony.

Here is one that bears out, somewhat, your position: The East St. Louis Railway Co. of 36 miles, valuation fixed by the Public Utility Commission of Illinois, \$1,500,000 as against a capitalization of \$3,800,000.

Here is the Portland Railroad of Maine, unit fixed by Sloan, Huddle, Feustil & Freeman, \$6,262,000, exclusive of going value and non-physical property; the capitalization is \$5,500,000.

I am going through all of these, but I want to call your attention to the fact that there has been introduced before this commission a statement of 36 roads giving that information as to the valuation and capitalization; and the variances between the values and capitalization. It is only 10 per cent on those, in most cases, arrived at prior to the great increase in prices or values of the last 18 months.

Mr. JONES. Does that list include lines which I have here of cities—

Commissioner GADSDEN. You have the list right before you. No; it does not include New York—

• Mr. JONES. Or Philadelphia?

Commissioner GADSDEN. No.

Mr. JONES. Or San Francisco?

Commissioner GADSDEN. No.

Mr. JONES. Or Indianapolis?

Commissioner GADSDEN. No. It is open to the same criticism as yours—that it seems to have picked the high cities. That is just the point I want to bring out—that you have presented here the high spots and the bad ones, and here is a statement prepared from another viewpoint which picks the low spots and the good ones.

Mr. JONES. In all those cases were those valuations officially made by a public-service commission?

Commissioner GADSDEN. Is it not the fact that some were made by engineers and some by officials—

Mr. JONES. I included in my list every city where within my knowledge there was an official valuation except Portland, Oreg.

Commissioner GADSDEN. Well, now I will read to you another one. How about Cincinnati? Have you that on your list?

Mr. JONES. The Cincinnati situation is peculiar, if you know—

Commissioner GADSDEN. Let me read you about Cincinnati—

Mr. JONES. It is a situation all by itself which I rather avoided. There was a valuation by agreement; there were different valuations made which I would like to quote you if you want to know them. A valuation made by the company of \$36,000,000, a valuation made by the public-service commission of the State of \$24,000,000, and a valuation made by the city of \$12,000,000. Now, there were the original valuations of the Cincinnati property.

Commissioner GADSDEN. I will read you this and I would be glad if you would check it up, because I think it illustrates the situation. The memorandum that I have before me is that the Cincinnati Traction Co. has 226 miles of lines; the valuation of the public-utilities commission April 1, 1914, with subsequent replacements up to December 31, 1916, allowed by the city for the service-at-cost plan, was \$31,847,000, and the capitalization is \$31,088,000; that is as of December 31, 1918.

Mr. JONES. That \$31,000,000 you say was made by the State commission?

Commissioner GADSDEN. Valuation by the public-utilities commission April 1, 1914.

Mr. JONES. \$31,000,000?

Mr. GADSDEN. \$31,847,000; and the capitalization is \$31,088,000.

Mr. JONES. The State valuation was \$31,000,000? I do not know where you got that.

Commissioner GADSDEN. As a matter of fact, that valuation has been testified, has been accepted by the city of Cincinnati as the basis of the service-at-cost plan upon which the present rates are being fixed.

Mr. JONES. My recollection of the agreement was that it was practically \$25,000,000. I would have to refresh my memory. [Memorandum was here handed the witness.]

The CHAIRMAN. Have you some data there?

Mr. WARREN. What is the date of yours, Mr. Jones? This adds the subsequent expenditures to December 31, 1916.

Mr. JONES. Those three valuations within my memory were made between 1916 and 1917. I have no intimate late information of the Cincinnati situation.

The CHAIRMAN. Dr. Meeker, or Mr. Mahon, have you any questions?

Mr. JONES. I should say in the Cincinnati situation there was involved—very important factors were intangibles, the matter of superseded property and the matter of the going value and other things. There was the crux of the situation. That was the test between the city and the company and the State public-service commission—the question of whether those enormous intangibles as they were should be allowed in the valuations.

Commissioner MEEKER. I have just one question, Mr. Chairman, that occurs to me. After these discrepancies—and I would say enormous discrepancies—in valuations reached by different experts, you still have faith that through the method of valuation you can arrive at something that we can accept as the basis of fares or the basis of any other public policy in relation to street-railway control?

Mr. JONES. If those valuations are official, made by State public-service commissions or through some such arrangement as was made in Pittsburgh, where there is fair representation of both points of view. Now, there are honest differences of view and methods of valuation; and where the engineers employed are reasonably public serving, where their point of view is fairly correct, I think you can arrive at an approximately just valuation. I think the facts will show that in nearly every case there have been recognition of intangibles or superseded properties which, in the judgment of many men, should be eliminated. But approximately those valuations may be said to be just in many cases.

Commissioner MEEKER. With reference to the question which was asked some time back with regard to the relationship of the wage of employees on the street-railway companies to overcapitalization—is there any relation between wage and overcapitalization?

Mr. JONES. I think there is the same relation there that there is between the public and the company. If a company is hard up, in hard lines, somebody is going to be hurt. The first recourse of street-railway companies generally through the country, during the hard times as they come under stress, is to reduce wages and reduce service. Both employees and the public get pinched. That is the common recourse. Now, I say that does show an intimate relation between wages and capitalization, if those hard times are in a measure or wholly responsible for the companies' financial stress.

Commissioner MEEKER. I do not wish to ask this question in reference to wages, because you have stated that you have not made any special study of that wage problem.

Mr. JONES. I am not a student of the wage problem; no.

Commissioner MEEKER. But let me ask you this: Do you think capitalization of street-railway properties, as of other properties, is arrived at rather from the income end than from the investment end? Is the capitalization of the street-railway companies, in other words, the capitalization of income earning power?

Mr. JONES. As I have stated in my original statement, the present earning capacity of street railways has in many cases been capitalized, and also prospective future earning capacity. Those are both a part of the system of overcapitalization.

Commissioner MEEKER. So there is only a very indirect relation between wages and overcapitalization. What I mean by that is this: Wages, of course, is a part of the cost of production of the item, transportation. The only way that wages come into the problem of capitalization is if wages can be reduced sufficiently there will be a larger net income to be capitalized.

Mr. JONES. That is correct, and also if labor can be speeded up to a larger production there is a method of capitalization.

Commissioner MEEKER. It is one of very indirect relation, and our testimony here, I think, shows that differences in wage scales have

had little, if any, relation to the question of overcapitalization. That is all I have to ask.

Mr. JONES. I would like, Mr. Chairman, to correct a statement I made with regard to valuations. I have said that in many cases the valuation officials have reached approximately just results. I think I should like to modify that by saying they have reached such just results so far as the physical values of the properties are concerned. There are many cases in which, in my own judgment, I feel an excess allowance has been made for the so-called intangibles, but so far as the physical values of the properties are concerned, I think the valuations in general are on a fair basis.

The CHAIRMAN. I think it is pretty generally understood—

Commissioner MAHON. When you say valuations in general, do you mean those made by State authorities?

Mr. JONES. Official valuations.

The CHAIRMAN. I think it is pretty well understood that the methods that are employed in getting at the quantities—the land prices, the land values and unit prices and things of that kind—are pretty commonly exercised by all of the regulating commissions as well as the Federal Government. There is not an agreement among them, however, as to either the inclusion or the value which should be attached to the so-called intangibles.

Mr. JONES. That is where the wide distinctions come in valuations. Engineers pretty generally agree, or approximately agree, on the physical values of the properties.

Mr. WARREN. May I ask Mr. Jones a few questions about Massachusetts? Are you familiar with the laws of Massachusetts under which securities are issued? Have you given any study to that?

Mr. JONES. Yes. I have made no intimate study, but I am, in general, familiar with those.

Mr. WARREN. And, in general, you know that the securities have been issued over a long period of years only after investigation by the commission and approval of the amounts?

Mr. JONES. Yes.

Mr. WARREN. That is the reason, I suppose, that you took the Massachusetts capitalization as your base?

Mr. JONES. Yes.

Mr. WARREN. Is it not a fact, however, that in Massachusetts there is a very large amount of what might be called rural or country mileage?

Mr. JONES. Yes; that is correct.

Mr. WARREN. And that is usually built in the highways and not on private rights of way?

Mr. JONES. Yes.

Mr. WARREN. So that in the Massachusetts figures, speaking generally, there would be included much less cost of right of way than in some other States where the interurbans have been built on their own right of way?

Mr. JONES. Conditions in Massachusetts would be different in some cases and very similar in other cases to other States, I think—that is, as to the relation of the interurban structure.

Mr. WARREN. Then, is not another thing worthy of comment, that in New York the capitalization includes the cost, whatever the proper

cost may have been, of the elevated structures and a large part of the cost of the subways?

Mr. JONES. Yes.

Mr. WARREN. In Massachusetts the subways are built by the public, so that their cost is not reflected in the street railway capitalizations.

Mr. JONES. I have sought in this study and these comparisons to keep away from elevated and subway construction in cities where they have had that to any appreciable extent, because it would not be possible to make a fair comparison. I have not used the comparison as to capitalization per mile in the Washington cases, because there is such a large proportion of underground construction, which is much more expensive, and therefore I have not used that comparison at all.

Mr. WARREN. You mean in Washington City?

Mr. JONES. In Washington City.

Mr. WARREN. But in New York you necessarily had to use it, did you not? It is necessarily included.

Mr. JONES. I have made no comparison of New York capitalization. I have merely included the story of the past financial construction and management of the properties without any comparison of capitalization.

Mr. WARREN. But you made a comparison of Massachusetts capitalization per mile with the capitalization in the country generally?

Mr. JONES. Yes.

Mr. WARREN. And New York represents about one-fifth of the total capitalization of the country, does it not?

Mr. JONES. I could not answer that.

Mr. WARREN. Just one other thing, as to the bearing of capitalization on the plight of the street railways. I judge from what you have said that you would agree in a general way that the capitalization of Massachusetts has been held down pretty strictly.

Mr. JONES. Yes.

Mr. WARREN. What would be the impression that you would get from the fact, if it is a fact, that every operating company in Massachusetts with the single exception of one company which operates only 1 mile of track with a 5-cent fare, has either increased in fare with the approval of the public-service commission or has pending before that commission a petition for authority to increase its fare?

Mr. JONES. There are various ways to answer that, Mr. Warren. It would require in each case, I think, a study of the property and of its business. As I said before, many of those companies were imprudently established and never should have been and could not be made winners under any system, because the business is not there.

Mr. WARREN. Some of them have already been eliminated.

Mr. JONES. Yes; and then there are other factors, of course, which might enter into the situation there.

Mr. WARREN. But you have in Massachusetts almost every kind of company from the metropolitan company in the city and suburbs of over a million people down to the kind of a company you last referred to that ought never to have been built. That is all.

Mr. LAUCK. Were you going to answer Mr. Warren's question, or did you think you did not have the facts upon which to base an answer?

Mr. JONES. I have not an intimate knowledge of the Massachusetts situation. I only used that material which I did because it was included in the United States census reports. The only material I have used here concretely is the Bay State case, because a fair comparison was possible there.

Mr. WARREN. But you are not familiar with the statement of the commission a few years ago in discussing the street-railway situation, where they said that Massachusetts was free from the difficulties resulting from any overcapitalization, speaking generally?

Mr. JONES. I have read, I think, everything that has been put out by the Massachusetts commission and I presume I have seen it.

Mr. WARREN. But you do not happen to recollect it?

Mr. JONES. I do not recollect it; no.

Mr. LAUCK. As to the relation of the employees of the industry to the industry, in connection with some of your statements, I would like to ask you some questions. The street-railway industry is like any other industry, is it not? The factors that are producing traffic units are labor and capital, are they not?

Mr. JONES. Yes.

Mr. LAUCK. And these units of capital are invested, and a certain amount of labor is put in, and certain earnings result. You have made a statement under questioning that the tendency has been in the corporation management of the public utility corporations to capitalize the earning capacity. As I understood it, that has been your explanation and—

Mr. JONES. I stated that that has been one of the methods of the companies to augment their capital investment.

Mr. LAUCK. In other words, then, if capital and labor are producing jointly revenues, and those revenues are capitalized, you then have a situation where either capital or labor or where labor has not evidenced of what would be their earnings if this capital had not been issued, have you not?

Commissioner MEEKER. May I interrupt there, Mr. Lauck? Mr. Jones very properly corrected the question that I put to him; I did not include in my question the capitalization of hoped-for earnings. Mr. Jones included that in his reply and that should be considered, I think, in the question you are now propounding.

Mr. LAUCK. Yes.

Mr. JONES. For the purpose of reenforcing that opinion I read the circular from Hamilton & Co., investment brokers, of Baltimore.

Mr. LAUCK. Well, the reasoning from that opinion that I wanted to get at is this: That if capitalization—putting aside valuations and not considering them at all—if the practice of the public-utility corporations has been to capitalize earning power, irrespective of how those securities were distributed, either being given in stock dividend or stock bonus, or they may have been sold for cash by the original holders, anyhow the tendency would be, as time went on and the passage of those securities from the hands of the original holders to other holders, to the innocent investor, so to speak, or the so-called widow and orphan or savings banks, that the earnings which should have accrued to the benefit of the public or to the employees in the industry have practically been hypothecated, have they not, to the payment of interest and dividends and charges on the securities issued?

Mr. JONES. Those are the facts. As I stated, always the prior interest of capital; and the public and employees having to be subordinated.

Mr. LAUCK. Then if you add to that the further practice in public-utility finance or corporation finance of throwing out securities ahead of earnings, so to speak, you have something out ahead absorbing all increases in earnings, have you not, of the property from the actual increments of labor and capital invested in the property?

Mr. JONES. That would be the logical result, I should say.

Mr. LAUCK. So from the standpoint of the public there would be no hope of increased facilities, and from the standpoint of the employee there would be no hope of either one, unless they could by some means take away from the security holders their interest in these securities which they may have acquired for the purposes of investment, or in the savings banks, etc.?

Mr. JONES. Yes.

Commissioner GADSDEN. Does not the employee get his money first before the return is paid on the investment?

Mr. LAUCK. He gets his money first, but the point we would like to establish is: He is not getting an adequate participation and he is prevented from getting an adequate participation by having what should be his equitable share in the revenue hypothecated and absorbed by these methods of corporation finance.

Mr. WARREN. That would not be true if all of the securities were issued under strict public supervision, would it, Mr. Jones, and limited to the official determination of the amount required?

Mr. JONES. It would not be, if there was honest and intelligent supervision.

Mr. WARREN. Yes.

Mr. LAUCK. In other words, if the public-utility corporations of the States and municipalities, following out Mr. Warren's question, were authorized only to issue securities on the actual investment of capital in the property, then the interests of all would be protected, would they not?

Mr. JONES. I should say so.

Mr. LAUCK. So far as the future is concerned; and then we would only be concerned with the past. Is that correct?

Mr. JONES. That is correct.

Mr. WARREN. If you had a company like the Boston Elevated, which has been organized and all its securities issued since the supervision was applicable and it still was unable to earn its necessary income to pay capital and pay labor, it would be a question whether it did not really need more income, would it not?

Mr. JONES. There is a special situation all by itself, Mr. Warren. The Boston—

Mr. LAUCK. Well, you can answer it hypothetically, Mr. Jones.

Mr. WARREN. Take some other company, like the Springfield Street Railway Co., which is not complicated with subways or elevated or franchise limitations and the capital of which has been verified by the commission a number of times.

Mr. JONES. In the Springfield case there come in the other factors of operation, operating methods.

Mr. WARREN. You mean management?

Mr. JONES. Management.

Mr. WARREN. Of course, it may be that all the street railways of Massachusetts have bad management.

Mr. JONES. I am referring particularly to Springfield, inasmuch as you made that statement.

Mr. WARREN. Well, take Worcester.

Mr. JONES. I could not answer in that case. I know nothing about the Worcester situation.

Mr. LAUCK. You can answer that hypothetically, can you not? As I get his question, it is that supposing the capitalization represented actual investment and suppose that all future securities were to be under the auspices of the public-service commission, representing actual capital investment, and the company was properly managed according to the inspection of the proper public authorities; then if it could not earn a return, of course it would be entitled to increased fares or charge increased rates, would it not?

Mr. JONES. Theoretically and on principle it would be. There comes the question whether they would get the increased revenue, which is another story.

Commissioner GADSDEN. But not in practice, you think?

Mr. LAUCK. Well, that is hypothetical. Getting back to the actual facts, I was interested—do you know anything about the methods of corporations financed in the past in relation to the banking groups, you might say?

Mr. JONES. I have no knowledge on that subject.

Mr. LAUCK. You do not know anything about the financing of the Union Pacific?

Mr. JONES. No.

Mr. LAUCK. Well, putting aside valuations again—eliminate them from your mind now and consider the past history of these corporations, which you have been speaking of; what have been the general methods by which overcapitalization has been brought about? You mentioned several methods. You mentioned manipulation of stock from the inside, I recollect was one, and which you spoke of as stock bonuses and stock distributions.

Mr. JONES. I think the main sources have been through additions in capital investment made possible during the consolidations and mergers, through the organization of holding companies, through the charging of discounts of capital investment and stock and bond bonuses, stock bonuses largely. I should say those were the main causes.

Mr. LAUCK. These stock bonuses, mergers, and consolidations, payment of discounts on securities issued, and so forth.

Mr. JONES. And the exchanging of the stock, strong stocks for weak stocks.

Mr. LAUCK. That would be mergers and reorganizations, would it not?

Mr. JONES. That would be in part mergers.

Mr. LAUCK. Take the question of the western cities, in which Mr. Beall was asking your opinion: Do you think that was so much a question, in issuing those securities, of taking a risk as it was our method of flotation of corporation securities at that time? Do you think the difficulty was in the method of investment banking or control of security distribution or in the risk of the company?

Mr. JONES. I think I could not answer that intelligently. I have not an intimate knowledge of that phase of the subject.

Mr. LAUCK. Have you any knowledge of the building of these so-called western enterprises where through the aid of money or banking or extension of credit communities were developed?

Mr. JONES. I have not.

Mr. LAUCK. You do not know about the element of risk involved, then?

Mr. JONES. No; I do not. I am familiar with the method of the organization of the property in my own city, its inception, and how it was developed, but not outside of that intimately.

Mr. LAUCK. You are not acquainted with the building of the railroads even in the West? As I understand, you do not know anything about the financing of the Union Pacific?

Mr. JONES. I am not anything more than a superficial passing student of the railway question.

Mr. LAUCK. Well, I can not ask you the questions, then, that I wanted as to them. But aside from all valuations which have been a means of determining or attempting to determine actual invested values, you might say the means by which the excess securities have been floated have been from the methods in the past of corporation finance themselves, have they not?

Mr. JONES. Yes.

Mr. LAUCK. Have you had any occasion to look into any mergers or consolidations, as to how they were brought about or how they were worked out in the way of their relation to the flotation of the securities or the underwriting commissions charged or the relation of the banker to the consolidation or underwriting syndicate?

Mr. JONES. I think there were some instances of that in one or more cases which I studied, but I have not any intimate knowledge of the facts.

The CHAIRMAN. We will stand adjourned until 2.15 p. m.

(Whereupon, at 1 p. m., a recess was taken until 2.15 p. m.)

AFTER RECESS.

STATEMENT OF MR. W. JETT LAUCK.

The CHAIRMAN. Mr. Lauck, please give your name and position.

Mr. LAUCK. W. J. Lauck. I have no official position. I am representing the Amalgamated Association. I would like to run over, briefly, our case in an informal way, and to be interrupted at any time that the commissioners might deem it wise to interrupt me in bringing up any of the points.

I want briefly to summarize the points that have been made, and then, if the commission will bear with me, read our constructive suggestion at the end of our brief.

Before going into that, however, there has been a point brought up in connection with the hearings in the past which I was asked to explain to the commission relative to the system of collective bargaining which is now in vogue in the Philadelphia Rapid Transit Co.

I have been told that it has been stated before the commission that the National War Labor Board indorsed this plan. I wanted to

correct that impression. The National War Labor Board followed the policy of never indorsing any plan of collective bargaining. As a matter of fact, the board itself could not agree on a plan. We had the principle that employees should be given the right of collective bargaining, but did not include the right of union recognition, of course. Then the board made a great many awards covering this principle, which the employees of various kinds of establishments, utilities, and so on, would claim are right under our constitution, so to speak, and wherever it was possible we tried to have the employer and the employee agree as to some kind of a committee system that they would adopt; failing that, it became necessary for us to install the system, and in a great many cases—like in the Bridgeport munitions factories and the Bethlehem Steel Works and other industrial plants—we had to install a system, but we did it in a very skeletonlike way, laying down the committee system, practically, and withdrawing as soon as they could get together themselves.

The Philadelphia plan came about by the fact that we had had a controversy before us from the employees of the Philadelphia Rapid Transit, or a certain section of those employees, and finally Mr. Mitten, after that case had been pending for some time and had been finally adjudicated, or jurisdiction denied, practically—he decided that he wanted to be in accord with the principles of the War Labor Board and also with the standard of compensation of the War Labor Board as it would be in other companies; so he formulated a plan himself of collective bargaining, which he submitted to the board for its approval, and the board passed the following order, you might say, at that time—that was on November 8, 1918. The secretary explained the status of this case and read the following reply he had drafted, and it was approved by the meeting and was ordered sent out:

"The National War Labor Board views with great interest the portion of the cooperative plan of the Philadelphia Rapid Transit Co. which deals with collective bargaining, and regards the general intent and spirit of its provisions as entirely in accord with its own principles as outlined in the proclamation of the President of the United States. The details of the plan, however, such as the number and size of committee and similar items, should be made a matter of mutual agreement between the company and its employees. Mutual agreement at the outset with regard to the plan to be followed is even more essential than mutual agreement upon any particular adjustment which may follow in due course in the operation of the plan.

"The National War Labor Board is glad to cooperate in the carrying out of the initial elections which may be held in accordance with such mutually-agreed-upon plan of collective bargaining, and the secretary of the board will designate an examiner to supervise such elections if requested."

That request was made and the examiner was sent to see that the elections were carried out in an impartial way without any influence from one side or the other.

So that the board there followed its usual policy of trying to get the parties in interest to agree, and if they could agree, to say that that was acceptable to the board, and then went a step further and said it was in accordance with their principles, but never formally indorsed that plan or any other plan of collective bargaining which had been adopted by any utility or industrial corporation or any other form of industrial establishment.

The CHAIRMAN. In this pamphlet there appears a letter dated November 4, 1918, written to Hon. William H. Taft and Frank P.

Walsh, by T. E. Mitten, president of the Philadelphia company, in which he included a copy of their plan and invited the criticism of the board.

Mr. LAUCK. Yes.

The CHAIRMAN. The board answered in this letter of November 9, which has been read into this record.

Mr. LAUCK. Yes.

The CHAIRMAN. Would you consider the answer of your board as an objection to the plan which they had?

Mr. LAUCK. Oh, not at all; no, sir.

The CHAIRMAN. If you were the president of that company would you accept that letter as an approval of the plan?

Mr. LAUCK. As being in accordance with the principles of the board, yes; but not an indorsement.

The CHAIRMAN. The principles of the board were for collective bargaining?

Mr. LAUCK. Yes.

The CHAIRMAN. But not prescribing any particular way in which that collective bargaining should be made. That is it?

Mr. LAUCK. Yes.

The CHAIRMAN. So, then, the principle of collective bargaining as applied in the Philadelphia plan was approved by your board, was it not?

Mr. LAUCK. Not so much as applied in the plan, but in the fact that the officials and the employees had agreed to meet together and determine upon their industrial relations and conditions—that that was in accordance with the principles of the board, and any way that they agreed to do that would have been satisfactory to the board.

The CHAIRMAN. But in the letter of Mr. Mitten he invited criticisms of the plan, did he not?

Mr. LAUCK. Yes; the board never read the plan, as a matter of fact, or considered it.

The CHAIRMAN. Is that so?

Mr. LAUCK. Yes.

The CHAIRMAN. Then you did not criticize any feature of the plan?

Mr. LAUCK. No.

The CHAIRMAN. But you approved, in general, the plan without having read it?

Mr. LAUCK. Approved the principle of collective bargaining.

The CHAIRMAN. But you did send some one up there to supervise the elections?

Mr. LAUCK. Yes; the idea there being that having evolved a plan under which the employees would have had representation in the control of conditions and relations, they wanted to hold an election under impartial auspices, and the board was glad to send an examiner to see that the elections were carried out in an impartial way—to act as an election judge, so to speak.

The CHAIRMAN. Has this company fully discussed with members of the War Labor Board the plan which it has?

Mr. LAUCK. I think it was never discussed with the board; no, sir. Our former examiner became connected with this company and their advisor on industrial relations.

The CHAIRMAN. Who was that examiner?

Mr. LAUCK. Mr. John R. Caskie, a very estimable man and a very able man; and he came down later to discuss the plan with the board, but the board, without any reflection on the plan, did not have time to discuss it and did not think it would be worth while discussing it, because they never could come to an agreement on any plan of their own, and were not much more likely to agree on this; so that there was never any discussion of the plan.

The CHAIRMAN. You want us to understand, then, that the board, as such, has never acted for or against a particular plan which they had?

Mr. LAUCK. They never have indorsed it. I understood the statement had been made that we had indorsed this plan of collective bargaining—

The CHAIRMAN. I believe that statement was made by Mr. Joyce, speaking for the company, and he inserted in the record these letters.

Mr. LAUCK. The only action the board ever took against this plan, as I recall—we had a case in one of the New Jersey cities, in which the officials of the company, I think it was in Newark—utilized this plan evidently for the purpose of preventing unionization, on the ground that it was approved officially by the War Labor Board, which was refuted by the board at that time.

Your own secretary, Mr. Ogburn, who had charge of all those cases, can give you the details as to that; but that is just my personal recollection that I have of the question.

Commissioner MAHON. Mr. Lauck, since the date of that letter published there, are there not letters to Mr. Taft, as chairman of the board, where they sought to have him indorse that, and he refused?

Mr. LAUCK. I think so, undoubtedly. I have not looked up that correspondence, because it is in a basement or somewhere in the Department of Labor; but my personal recollection is that that is absolutely correct, and also came up as a vital issue in this New Jersey case.

The CHAIRMAN. Would it not be better if you could put those letters in the record?

Mr. LAUCK. I shall be very glad to do that. I have not had the opportunity—the sessions have been so continuous here—but I can get those by to-morrow, I think.

The CHAIRMAN. It will be better to comment on the letter after it is in the record.

Mr. LAUCK. But I think there is no doubt about that. The effort was made to have the board indorse it, but the board did neither indorse it nor take any action against it, except in the one case I refer to, where it was evidently being used as a means of collective bargaining, in lieu of unionization, and the board had to take action that it would not approve.

The CHAIRMAN. You will kindly insert in the record, then, the letter from Mr. Mitten to Mr. Taft, and his reply?

Mr. LAUCK. Yes.

Commissioner MAHON. I wanted to know if the representatives of labor on that board ever did indorse that plan or give it any consideration?

Mr. LAUCK. Not at all. It never was discussed by the board at all. As a matter of fact, it is not violating any confidences of the board, because that is well known, to say that the labor and employer members of the board could never agree as to the practical application of collective bargaining, because, of course, the employee members were committed to the principle of unionization and considered these schemes of collective bargaining as worthless because they were not based on labor organization. On the other hand, the employers—a majority of them—favored the principle of collective bargaining as a substitute for unionization, because it would be confined to their own establishments and eliminate the officials of the union; and the only way we could ever agree was through an agreement between the joint chairmen which the staff followed; and that agreement, as to Philadelphia, of these principles and those applications of the principles was practically put into the effect because neither side could agree as to any change; so that we were able to go forward under those conditions.

The CHAIRMAN. Did not the members of the board look upon this Philadelphia plan as a union?

Mr. LAUCK. Not at all, I think.

The CHAIRMAN. Where you get all the men organized into a society that gives them many benefits and privileges, what would you call it if it is not a union of the men?

Mr. LAUCK. You might call it a local union; but in the accepted term of unionism it would be called by the labor representative a company union, you might say. On the part of the employers, they would consider it a union. But from the strict standpoint of unions or labor organizations, it would not be considered as such, because, having no national or other affiliations, it would be considered an organization of employees, but not a union in the accepted sense of the term.

Commissioner Mahon. It would be considered by labor as being completely under company direction?

Mr. LAUCK. Yes.

The CHAIRMAN. That is not so at Philadelphia, is it?

Commissioner Mahon. We think so; that is our opinion.

Mr. LAUCK. They would consider it as what they would term, in a colloquial sense, a company union. All of them are known by that name.

As a matter of fact, it is perfectly evident, I think, to any disinterested student of the question, that any form of collective bargaining that is not based on unions is futile. I think some employers have reached that opinion, and I think a great many officers in the street-railway industry have. This is the only case I know of where there is a union of this kind, practically, in a street-railway industry probably, with the exception of, as I recall, the Twin Cities Co., in Minneapolis. I do not know whether they have a local organization or not, but the general spirit of the street-railway industry has been, so far as my observation went, with the cases we had before the board, to recognize unionism, and I think it is recognized by the great many employers, especially the far-sighted ones—that these systems can not stand. It is evident on the face of it that they can not stand, because with a committee system of this kind and the pressure from below urging the committees to present certain

things to the management, if they do present them, they become more or less marked men with the management and are apt to incur displeasure or to suffer in their working relations and conditions, and that a great many committee systems have failed just for that reason—on account of the grinding of the upper millstone, and the pressure from below, the committeemen resigned. I remember Gen. Tripp, of the Westinghouse Co., telling me his committee system had failed. It is only in companies like the Standard Oil Co., where they sort of anticipate trouble, or possibly in the Philadelphia section, where you have a man in charge who is far-sighted and anticipates what may be the trouble.

The CHAIRMAN. You have made quite a study of this problem, have you not, Mr. Lauck?

Mr. LAUCK. I have had quite a lot of observation of it.

The CHAIRMAN. Can the company control its employees when they have the right to elect their own representatives by a secret-ballot system?

Mr. LAUCK. They can not control their employees at all. I do not think they can do that, but I think there is not so much danger from the employer or the company controlling its employees under a system of that kind, but from the fact that the employees can not make any impression on the company, as they have no basis of action. If the company refused to accede any reasonable request, they have not the basis of strength in the organization to force the company in the way they would if they had a national affiliation, with the financial resources of the national association, and all the strength which would come from the affiliated bodies in other establishments of the same kind.

The CHAIRMAN. They have the right to strike if they choose?

Mr. LAUCK. They could strike, but the strike would be futile because they would not have any means of support beyond their own local funds and would not have the cooperation of other members in their craft engaged in similar work in other industries—say in a street-railway industry in other localities; so that the chances would be very much against them as compared with the usual unions, which in the event of an authorized strike, would have the support of the national organization, not only as to advice but as to financial resources—strike benefits. That principle has been recognized officially by the Government of Great Britain in the so-called Whitley Councils and which are being advocated under Government auspices at the present time on the basis alone of unionization. That is, it has been conceded by the British Government that there can not be any effective collective bargaining unless it is based on the unionization of the employees. It is a matter of debate as yet in this country and in Canada.

I would like briefly to review the main points or some of the main points that have been made in the presentation of our evidence through the section 4 and then read to the commission section 5, which is very brief.

I might say that the main point the employees have had in mind in presenting this case has been to protect themselves against the general claim which is more or less popular at the present time and which seems to have an almost universal acceptance, that

the increased cost of living is due to what is sometimes termed the exactions of labor, or due to the increases in rates of pay that have been secured by labor during the war and at other times. That is the tendency, as everyone knows is very prevalent, to attribute higher prices to the exaction of employees in the various industries. And it has been thought, in connection with the work of this commission, that the employees should expose the fallacy of that, otherwise the financial difficulties such as they are with which the street-railway industry is at present confronted, might be attributed and have been to some extent in the course of the proceedings before the commission. We claim that there is no greater fallacy than that current at the present time, not only in general but as applied to the street-railway industry.

For instance, you know how it is in the case of shoes. The Federal Trade Commission has recently made a report as to the production of shoes and that report shows that, for instance, a pair of shoes that was \$6.50 or \$7 before the war and now is \$12.50, that the direct manufacturing cost of those shoes was about 73 cents per pair, and that during the war employees in the shoe factories got about 80 per cent or something like that increase in wages, which the report shows amounts to about 43 cents per pair of shoes, making the total labor manufacturing cost of a pair of shoes of this kind, as I recall it, about \$1.12 or \$1.15. And yet all of us who have had experience in buying shoes know that the retail dealer immediately says that this increased price is due to the increased cost of labor, that the laborers in the shoe factories have been getting increases and his own employees have had their salaries increased; therefore he has had to put up the price of shoes all along the line, whereas the price of shoes, so far as labor is concerned, has only been affected to the extent of 43 cents a pair on a \$12 pair of shoes, and then the price has been increased \$5 or \$6 a pair in their cost.

The same thing is true of steel rails. The Bureau of Corporations in 1910 made a study of the cost of production of steel rails. At that time they ascertained, I think, the labor cost in a ton of steel rails was \$3.20, if I remember correctly. Now, the price of rails has gone from about \$28 or \$32 a ton up to \$57 a ton. Labor has got about 100 per cent increase in wages. 100 per cent increase in wages would be about \$3.20, if you doubled the labor cost; yet the statement is commonly made that the increased cost of steel products is due to the tremendous rates of pay to labor in the steel industry.

Commissioner GADSDEN. I am interested in that, Mr. Lauck. As I understand that proposition it is not confined to the charge. Take the case of shoes, for instance, that all the increase is due to the increases in the wage of the men engaged in the shoe factory, but that the increased cost of the leather as it is bought at wholesale is largely made up of the accumulated accretions of the wages of men back to the live stock. Will you follow that through? What else will—

Mr. LAUCK. In this labor cost I have not the documents here from the steel industry; but I think that includes the labor cost from the Messaba and Vermilion Ranges and also the limestone and coal labor, as well as the steel labor in this ton of rail; and it would include all this accumulated labor cost.

In shoes, that was the direct manufacturing cost I was speaking of; and I think there the increased cost was pretty well understood not to be the accumulated labor in the leather, but it is alleged to be the control of the hide and leather supply and the tanning industry by a certain group of industrial interests, the packers. I do not know about the accumulated labor costs there, but that is the contention—that they have put up the price of leather to such an extent, due to the scarcity, that not the labor in the leather or in the hide is responsible, but it is the artificial price due to the great scarcity of hides and the increased cost of leather entering into a pair of shoes. But I am certain that the accumulated figure for the Bureau of Corporations included the accumulated labor cost in a ton of steel rails, and of course in the case of the steel industry at the present time—take the United States Steel Corporation, and this figure was based on the United States Steel Corporation—there has been no increase practically beyond that to them. They still have the same ore beds and the same railroads. They might have more transportation cost or more labor cost on their boats across the Lakes, but if that is included in their 100 per cent increase to labor, they still have all the raw materials, and there could not be any further increase there except, you might say, these raw materials have enhanced in value due to market prices.

Commissioner GADSDEN. I am not taking issue with you, but I want to develop this fact. Take this street-railroad situation—

Mr. LAUCK. I see what is in your mind.

Commissioner GADSDEN. Our increases are due in large part to increases in direct labor. These have been fully testified to.

Mr. LAUCK. Yes.

Commissioner GADSDEN. The next very important item is the increase in the price of coal. That is made up, as I understand it, almost entirely of increases in labor, or transportation, which is another form of labor. For instance, the freight rate on coal has been increased, we will say, 30 cents a ton. Now, we all know the Government claims that they need that extra money to pay the increased labor, so I take it that that 30 cents is for labor. So I have been under the impression that if it is properly analyzed—I do not mean exceptional cases where the raw materials are monopolized; but if properly analyzed, I mean—all of these increases could be traced ultimately to labor. Now, I would like to hear you on that.

Mr. LAUCK. Well, I have not the data to go into it extensively, because there has been no data collected on that. That is the popular impression; but, so far as my observation would go and my knowledge of cost of production in investigations, I should say that idea was fallacious. I do not think that prices now are due, or have any relation, to labor costs. I think they are due to scarcity of supply and that the labor cost would not be a determining factor in the prices. It might be true of coal, for the reason that coal has been more or less controlled and related to the actual cost of production during the war; and, as I understand, there has not been any increase much in the price of coal since the war, and, of course, the increased labor cost would affect it; but I think that the relation of the ratio of labor cost to selling price is not a determining factor.

You take the steam-transportation industry. I am certain if you would analyze that as to the labor cost per ton-mile, you would find

that the labor—we found prior to the war that there had been an actual decrease in operating labor cost per ton-mile, due to heavy train loading, heavy car loading, and to better transportation facilities, heavier traffic power, and therefore increases in wages were met by increases in car loading and train loading, which practically made the ton-mile cost less in terms of labor. But, of course, you have not that opportunity on the street railways unless you have a situation like Philadelphia. Philadelphia impresses me as not such a—I do not want to cast any reflections on Philadelphia—but not so much an example of great managerial ability, although it has been finely managed as far as I know, but they had the people there to ride, and the people were in the cars, and therefore you got a heavy car-load, due to the presence of the people. Other companies may not have the people to put in the cars. So you reduce your cost per unit of traffic, and it costs you less to handle a passenger; therefore you can do business on a smaller fare or at a less cost.

I think it was due to the fact that there was such an abnormally large number of people in Philadelphia during the war, and in the environs of Philadelphia, and it illustrates exactly what happens on the steam railroads, where under normal conditions we can weight and put cars in a train and have heavy train loading and get the greatest efficiency in terms of their labor and materials, which they could not do, of course, during the war, their idea being to get the things over the road without regard to cost, and we have an abnormal situation, and I think that is true of a great many street-railway companies, although we have shown that the increased cost for motormen and conductors, just restricted to that element of labor, has only been 0.37 cents per revenue passenger. Very probably the cars were not loaded to their capacity. If you had the people, just assuming something which does not exist, especially on your sparsely settled suburban lines, you would have had the facilities to probably show a decreased labor cost in the light of even the increased wages.

But the general point of view which we wish to put before the commission is that the idea that labor has been responsible for increased operating costs, representing the motormen and conductors, and not speaking of labor in general, it has not been a determining factor, in view of the fact that the labor costs in terms of motormen and conductors for all the street-railway systems in the United States considered as one system has only been 1.4 cents per revenue passenger; that you could have quite large increases of wages for those classes of employees without very extremely affecting your labor cost as restricted to them.

But the general idea that I wish to submit was that it seems unfair to employees to impart the notion that is absurd and utterly fallacious from an economic standpoint—if the conditions were analyzed from the standpoint of the present high cost of living—that the high prices have been due to the increased labor cost. So far as the data goes, it shows that the proportion of labor cost to selling price is not such a ratio as would justify assertions of that kind, and that the attempt to reduce the cost of living on that basis of withholding the wage increases is a fallacious point of view, and that nothing can be done until you absolutely control the supply of commodities and regulate the price and distribution of them.

Commissioner GADSDEN. I did not mean to interrupt you, but I wanted to bring that out as you went along.

Mr. LAUCK. I just wanted to bring that out as a general point and give it practical application in the light of Mr. Sturgis's testimony, the main object of which, as he so clearly pointed out—and it is not worth while for me to repeat—was that the contention of the employees, meaning by employees always motormen and conductors, or the Amalgamated Association—is that the wage increases secured by them during and prior to the war have not been such a factor in operating costs as would lead to the unjustifiable claim that the increased operating costs of the street railways have been due to wage increases to these employees. I think that is clearly brought out in his analysis of the operating performance of the railroad as set forth by him, and it is the main point that we want to establish in that connection.

We realize that the statement is made that the data that has been presented as to the financial practices of street-railway corporations in the past has been criticized on the ground that this is academic and ancient history and has no bearing upon the present. We wish to take issue with that. We think this has a very great significance at the present time and, as a matter of fact, is of paramount significance in the consideration of the attitude of the employees toward the industry. In this way: That we consider that we do not wish to charge the present managements with responsibility for these practices and the evils which have developed from them, but we consider that they are the victims of it along with the employees, and both the employees and the management and the public are all victims of these past systems of corporation finance which the street-railway industry is suffering from at the present time. Or in other words, the practice which has characterized past years of capitalizing income that has been developed as the result of the development of urban communities or the application of new equipment or the increased efficiency of employees. Because with the extension of capitalization in this way the tendency has been that when other items of operating cost have increased, such as materials and supplies and all the elements going into operating expenses and maintenance and repair of equipment which has been installed by managements for the purpose of securing economies in operation—that with the increase in the operating ratio and these securities outstanding which have been issued without any commensurate investment values in the property and were really a drain upon operating revenues, that the margin of safety between the amount of revenue left after fixed charges were paid and remaining to meet new capital issues have been gradually and gradually declining until it is practically nil at the present time, and therefore the street-railway managers have not had an opportunity or have had no basis upon which to secure new financing, and which is a direct outgrowth of these previous practices.

We think employees have a very vital interest in that, as Mr. Jones pointed out this morning, or as came out in the course of his testimony. That if the capital investment in the properties represented an actual commitment of capital the returns would then be related to the actual capital investment and it would be evident both

to the employees, the management, and the public as to the legitimate return in the case of this industry, and the employees would have a better opportunity not only to demonstrate their equitable participation in the earnings of these properties but also to secure such participation; while if the past system of corporate management would continue that there would be no hope for the employee, there would be no hope for the public, and there would be no hope for the present management, because they would all be the victims of the financier or of the interests which were floating these securities or had financial control of the property.

I think that is conceded by the testimony of the men who are intimately connected with the industry and who are practical men in the industry, I mean as to overcapitalization and the evil effects of it.

For instance, Mr. Guy E. Tripp, or formerly Gen. Tripp during the war, chairman of the board of the Westinghouse Electric Co., in his testimony before this commission, in discussing the results of processes of overcapitalization said: "Yes, large fortunes were made; * * * they were made, however, out of capitalizing the future and selling the securities, and not out of the 5-cent fare rider. * * * Hopes were capitalized, and hopes were sold, and the investors have lost money."

The same way, Mr. Henry G. Bradlee, of Stone & Webster, said: "The practice,"—speaking then of the practice of issuing bonus stock—"grew up, and there was a time when it was practically impossible to finance a new corporation without following that practice. I think the public-utility people recognized, perhaps not at the start, but many years ago, the fallacy of that method of financing."

Commissioner GADSDEN. Right there, Mr. Lauck, I would like to have your views—admitting all of that for the sake of the argument—as to what practical bearing that has upon the situation since presented to this commission that the industry is now suffering from practically a deficit in operating revenue.

Mr. LAUCK. It has this bearing—I will come around to that later.

Commissioner GADSDEN. I do not want to interrupt you.

Mr. LAUCK. If you will remind me when I come to it—I think it has a very practical bearing because it involves the readjustment of the relations of the public to the industry and the industry to the public.

Commissioner GADSDEN. Yes.

Mr. LAUCK. Our general conclusions, as I stated in anticipation of our testimony, as to labor and the present financial plight of street railways, is that we consider that the extraordinary gains in revenue, etc., arising from different methods of operation, from unearned increments and mechanical equipment, as well as from managerial ability and labor efficiency in the past, have to a large extent been absorbed by these processes of corporation financing or fictitious capitalization, or in other companies have been actually dissipated by improper and misguided financial mismanagement; and our conclusion is that the present deplorable financial condition in which the street-railway companies find themselves has not been due to an advance in operating costs in arising from increasing outlays to labor, but has primarily arisen from past mismanagement of the finances of these utilities in the way I have just indi-

cated—that the present managements, having inherited the results of past mismanagement in the times of increasing operating costs—the costs of materials and supplies, etc.—have seen their margin of safety disappear and their credit disappear, and the company is placed on the verge of insolvency due to these past financial malpractices.

Payments to employees of the industry have not only had no effect upon the present finances of the companies, but, as a matter of fact, the employees have not had an equitable participation in the results of their own labor. Their past productive efficiency has been absorbed by this fictitious capitalization; and if the past methods were to be continued into the future, the fruits of the labor of employees as yet unborn—generations yet to come to work upon the railroads—would still have their efficiency absorbed and would not have a chance for a fair participation in the revenues of this industry. And unless the present basis of financial management and control is changed, the future is without hope, as we claim, to the employees or to the general public or even to the practical managements of the companies themselves, who have faced actual problems with which they are confronted at the present time, of operation and making the companies go as financial concerns.

Those are our two main negative conclusions, I might say, that have been developed by Mr. Sturgis's testimony and by the testimony of Mr. Jones: That we consider that labor has not been responsible for increased operating costs in the terms of motormen and conductors, and that we consider that the present financial difficulties of the railroads are primarily due to past financial mismanagement. And we agree very likely, on the question of bringing up the history of these past managements of financing these corporations, with ex-President Taft, who, I believe, testified before this commission that they were not of any significance except it became necessary to take judicial notice of them; and we think from our own standpoint it is necessary for the commission, in relation to the employees, to take "judicial notice" of those facts, in order that the employees may have an opportunity of equitable participation in the future in any recommendation which the commission may make.

The second main point brought out jointly by Mr. Sturgis's and Prof. Ogburn's testimony that we would like to submit to the commission for consideration is that we consider that the actual rates of pay of the street-railway employees prior to the war were inadequate, that they had not received an increase in wages during the war corresponding to the increased cost of living, but if they had secured an increase corresponding to the increased cost of living, that this increase would simply have been a means of perpetuating inadequacies and insufficient wages that existed prior to the war, and that if the rights of the employees in the industry are to be properly considered by the commission, that there will have to be an entirely new adjustment and the employees given a living wage.

We claim that the wages now are not only inadequate, but are not sufficient to maintain a proper standard even of subsistence and that they fall far below the minimum standard of comfort which was outlined by Prof. Ogburn.

We contend that the commission, in its recommendation, if they are going to follow the principle of making wages correspond to the increased cost of living, will have to take notice of the point which was raised by Mr. Gadsen yesterday—the fact that the companies must anticipate further increases in wages in their operating experience in the future. But we wish to contend further that the commission should consider and create in its recommendations the principle of a living wage to the employees—not any definite amount as to what that wage should be, but it should accept this principle as a basis of recommendation for the rehabilitation of the companies.

I do not know whether it is worth while for me to review the question as to the inadequacy of the wage rates, which were brought out so clearly by Mr. Sturgis. The conclusion of Mr. Sturgis was that by January, 1919, wage rates had increased 48 per cent, while the cost of living had gone up 72 per cent. He also made another point in that connection which I would like to again emphasize to the commission, which is the disclaiming of the more or less popular point that the National War Labor Board put the street-railway financial industry on the rocks, so to speak, by its decisions; that an examination of the facts, as set forth by Mr. Sturgis, clearly indicated that their decisions were moderate, and in a great many instances did not compensate for the increased cost of living during the period which they covered.

Speaking about the theory of wages—on page 55 of the brief you will find we have set forth there our position. We claim on this matter of a living wage that the whole theory of wages as advocated by the economists and by public opinion must be changed in the light of new conditions which are developing; that the old theory of wages was that rates of pay were determined by laws of supply and demand—that is, that the rates of pay to workmen should correspond to the adjustment between the supply of labor and the demand for labor, and if anything happened disadvantageously to the demand for labor, of course, the wage rates were reduced, or if anything happened unfavorable to industry the workman was the residual sufferer. The only way that the laborer practically could find any relief was by exercising a moral restraint on the increase of population or by some fortuitous event like a war or pestilence that decreased the available labor supply or that shut off the immigration; such as happened in this country during the war.

That wage theory, so to speak, which has been the practical basis of operation in industry until recently, has been a dismal theory so far as the workman was concerned, and if to be continued involves nothing more than a philosophy of despair for the workman, because he can not hope, under those conditions, to properly advance his own economic welfare or the welfare of those dependent upon him.

The first change in this idea as to the determination of wages was embodied in the Clayton Act, enacted in 1918, in which it was stated that labor was not a commodity or an article of commerce. In other words, if you accept that as a guiding principle, the determination of wage rates is not a matter to be determined on the basis of supply and demand, like you would fix the price of wheat or fix the price of coal or of steel, but it recognizes the humane aspects of the situ-

ation—that labor is a human being, and that there are other considerations rather than the hard and fixed and more or less immutable laws of supply and demand to determine a workman's wage.

It might be said then that the attitude of economists of the past generation, as well as the practices of industry itself, to a considerable extent, as to the procedure to be followed in fixing wages, may now be said to have received the unqualified condemnation of the civilized world.

That is, the practical application of this new principle in preventing the free play of economic forces of supply and demand in fixing wages, consists in this—to put it definitely and concretely: That the wage earner is entitled to a living wage, and that there are considerations of public policy, as well as of humanity, that should determine the fixing of the amount of wage which a workman should receive.

The acceptance of that idea and the contention along that line has proceeded to such an extent that the living wage is defended not only on grounds of human and social well-being, but also on the purely selfish ground that it yields the maximum output from labor itself. In other words, the more intelligent employer of labor has conceded that a living-wage standard is the most economic and yields the best results from the standpoint of revenue.

This principle was recognized by the proclamation of the President, following the agreement of capital and labor in working out the principles of the National War Labor Board and became the settled policy of that board during the war so far as the enunciation of the principle was concerned.

This Labor Conference Board, which preceded the National War Labor Board, was made up of representatives of industry and labor, agreed upon the following principles as to the living wage:

1. The right of all workers, including common labor, to a living wage is hereby declared.

2. In fixing wages, minimum rates of pay shall be established, which will insure the subsistence of the worker and his family in health and reasonable comfort.

This principle was accepted and proclaimed by the President as a part of the Government's policy to be followed by all wage adjustment boards during the war.

Later, since the armistice, it may be said to have received the unqualified endorsement of the entire civilized world, in view of the fact that in the labor provisions of the peace treaty two of the principles established are as follows—and at page 85 of the brief you will find the principles of the peace treaty reproduced. The first section, in its principles, is:

The guiding principle above enunciated, that labor should not be regarded merely as a commodity or article of commerce.

3. The payment to the employed of a wage adequate to maintain a reasonable standard of life as this is understood in their time and country.

Another remarkable development in this connection has been that almost without exception all the religious or ecclesiastical organizations of the country and of Great Britain and Europe have given their sanction to this same principle; and they not only give their sanction but are practically carrying on educational propaganda

and practical measures, have collected funds and are engaged in the work of giving widespread consideration to this principle and attempting to realize its practical application in some way.

So that it might be said that to demand a living wage for the employees of the street railways as a condition to any reports by the board is a very sound position, not only from the standpoint of public policy of this Government, the standpoint of the public policy as announced by all the leading industrial and commercial nations of the world in the peace treaty, but it has received the universal sanction of the churches of all denominations, both Protestant and Catholic churches; it has the sanction of the leading employers of labor in this country; as set forth in the principle enunciated and followed by the National War Labor Board, it is the fundamental economic and political right to which labor is entitled by every ethical and moral consideration. And to deny the motor men and conductors the principle of a living wage, it seems to me, in the face of these announced policies and practices of our own Government, and the face of the guaranties of all civilized nations in the peace treaty, would be more than equivalent to and more serious than the denial of free speech, the denial of the right of assembly or religious freedom, or any other civic right or liberty. In other words, as we shall claim later, we claim this now as a fundamental, economic right to labor which should be embodied in the recommendations of this board for the financial rehabilitation of the industry.

Before going concretely into that, however, I would like to ask the board to turn to page 59 of the brief. I refer there to the general title, "Inadequacy of prewar rates."

The average annual earnings, as taken by Mr. Sturgis from the Census Bureau, have been set forth.

In 1914, you will see, right under the first paragraph, \$864 per annum. As developed by Prof. Ogburn's testimony of yesterday, according to the standards laid down by Prof. Chapin and other authorities at that time, which you will find quoted on the next page, an income of \$900 or over probably permits the maintenance of a normal standard so far as the physical man is concerned—that is, to provide for the man's physical subsistence and shelter and clothing, but not for any degree of comfort beyond that, or probably not for a healthful standard of living; because you will find on page 61, in the table there, the results of investigation, also referred to by Prof. Ogburn in his testimony, in which it is indicated that incomes of families of between \$900 and \$999 show that 22 per cent of the 391 families were underfed, and other proportions were underclothed, overcrowded, etc.

So that we claim that, on the basis of earnings of employees of this industry, as compared with these standards—minimum standards of subsistence—they were actually below the subsistence level prior to the war; and we claim, further, in the next section of the brief, which is set forth in the third paragraph on page 63, that the average rates of pay and earnings of conductors and motormen prior to the war were inadequate on a bare-subsistence level, and were not sufficient to support an average family in health and with any degree of comfort.

It has also been shown that the prices of the cost of living increased faster during the war period than the rates of employees.

The conclusion is therefore plain, assuming the premise that the real wage of street-railroad employees is at the present time even more inadequate or more subnormal than prior to the war, and an advance in rates equaling the entire increase in the cost of living would still maintain the prewar inadequacies, and what is needed is a living wage, in order to meet a living standard as set forth in general terms by Prof. Ogburn, which would maintain the physical needs of an employee and of his family in a healthy way, and provide at least to a minimum degree comfort and opportunity for social, economic, and general political well-being of the head of the household and of his family.

In that connection, I have embodied in the brief, at pages 65 and following, some comparisons which it might be of interest to the board to note.

Reference was made yesterday to the study which had been made under the old Bureau of Labor, or Bureau of Labor Statistics, in 1901 as to the cost of living of more than 25,000 families at that time. In the discussion of weights that went into the budget, we have taken out of that 25,440 families about 25 families—or the bureau did, at that time—and studied them intensively; and in the table at the foot of page 65, the leading facts as to those families are shown on the basis of their status in the year 1900.

Then, on page 67, we have taken those same families at the cost of living in 1900 of \$769 for these 2,567 families.

Applying the increases in relative weights in the cost of living, from that time to the present date, we have shown for the year 1911 that if that family had had \$769 in 1900, it would require \$923 in 1911, \$979 in 1914, \$1,401 in 1917, and \$1,653 in 1919 to maintain the same standard of living that they had in 1900.

Other groups of income for families are shown in the next two tables.

There is one group of families with an income of \$800 and under \$900; in 1914, having an income of \$999, they would require \$1,737 to maintain that same standard of living at the present time.

So, on the next page you will find the comparisons of families of other income groups, \$900 to \$1,000, \$1,000 and under \$1,100, showing, to maintain the standards prior to the war, what would be necessary in the way of a wage at the present time.

I am not pointing these out with the purpose in mind that the commission will ever recommend a definite wage, but to illustrate what the principle of a living wage would require at the present time to maintain, in adequate form, family life.

I would like to ask the attention of the commission to page 69, in which there is set forth the Seattle street-railway employees' budget, which was spoken of last evening by Prof. Ogburn and which received the practical sanction and application by the arbitration board of which Dr. Suzzalo, president of the University of Washington, was the head. That was in December, 1917, and provided for rates of pay of the employees there, motormen and conductors, to be based upon an annual budget of \$1,505.

That budget, applying the increased cost of living since December, 1917, would now amount to somewhat over \$1,900 per annum.

Then the Piexotto budget, prepared by Dr. Jessica B. Piexotto of the University of California, practically at the same time, the total of which is shown under page 70, in October, 1917, amounted to \$1,476, supposed to be a budget of comfort and health for the workers in Oakland, Calif. That, if you applied the increased cost of living to that since that time, would amount to over \$1,900.

Then I have set forth on pages 71, 72, 73, and 74, the budget of minimum comfort and reasonable minimum comfort and health for a family of five as discussed by Prof. Ogburn last evening, which shows a total cost at the present time of \$1,941.

On page 71 is given the budget as originally drawn by him in June, 1918, and as submitted to the War Labor Board and afterwards submitted in the packers' arbitration in Chicago to which have been applied the increased cost of living of the different items since that time, making a total of \$1,941 at the present time.

You will see on the bottom of page 71 also the quantities of food and on the succeeding pages the amounts of clothing, and so on, that are allowed for these different items.

Prof. Ogburn pointed out himself that this was a budget of minimum comfort and was sufficient merely to keep the apprehension of want from the door. In other words, it provided for the physical welfare of the family and the health life and gave a minimum amount of clothing and some recreation, and provided also for the insurance of the head of the family and an annual saving of \$100. So it should be considered, it seems to me, as a most conservative estimate of what the minimum requirements should be at the present time.

The general conclusion that we have come to, speaking of money rates of pay or annual incomes, has been that what would be necessary to properly sustain the family of a motorman or conductor, the average family, at the present time would be approximately \$2,000 per annum, which would provide simply for the physical requirements and subsistence and healthy life and also yield some minimum measure of comfort, recreation, and provide for a small annual saving.

That completes the review of our testimony; and if the commission would bear with me I would like to go into the succeeding three or four or five pages with more detail, in which our constructive recommendations are set forward.

We have summed up the constructive problem before the commission as involving three main features:

First, the railroads claim that they are financially impoverished and are in a deplorable plight, according to their own testimony, and under the stress of this emergency the commission is therefore faced with the duty of devising measures to put the electric-railway-transportation industry upon a sound financial basis. This means, in the light of the interests of the employee, that the industry must be put upon a sound basis of capitalization. We are not recommending any specific basis, but we think the principle should be followed of a sound capitalization and a sound method of corporation finance in the future which would prevent the absorption of earnings of employees or other earnings, along some line that may have been suggested or such as the public regulation of security issues and consolidations and reorganizations, and so on.

In the second place, it seems to us——

Commissioner GADSDEN. Do you want to be questioned now or afterwards?

Mr. LAUCK. You had better question me afterwards, I guess; but it is all right. There is a limitation on my presenting my point of view, and Mr. Mahon is going to submit it on the broader aspect.

Commissioner GADSDEN. Go ahead.

Mr. LAUCK. In the second place, it impressed us that the financial reorganization of the industry involves a readjustment of the relations between the public and the electric railways.

Third, a readjustment of relations as between the public and the companies and the employees.

Now, constructive proposals which we wish to put forward are three, practically. There are a great many constructive proposals which have been placed before the commission, and in order that there might be a background for discussion I have classified them on pages 80, 81, and 82. We have gone through the testimony and made the reference to the pages there.

We think that any measures for immediate relief should be conditioned upon whatever the final recommendations of the commission would be, otherwise it might devolve to the detriment of the public or the employees. In other words, if there were temporary relief it might perpetuate the past evils to the management or the employees or the public, and it seems that the evidence tends to show that there should be a complete constructive program outlined by the commission.

The paramount interest in the entire situation seems to us to be the public interest. The public is dependent on the street railways and the public can not permit them to cease operations. And because the transportation facilities are too vitally bound up in the daily life and activities and work of the public, and if the street railways or the public utilities are in a deplorable condition from whatever cause it may be, we think it is incumbent upon the public to act, and act in a way that will practically rehabilitate them and care for the interests of all concerned.

The present situation has only stimulated and brought into the foreground the significant relation between the street railways and the general public. The realization of this truth, it seems to us, has been gradually developing, along with urban life and the complexity of modern life, and the relations of street railways to that life. Our belief is that the public is undoubtedly willing to pay for the efficient operation of street railways on the basis of just guaranties to capital and labor. Our point of view is that the problem of the commission is to consider all facts and constructive proposals and to recommend—with these just guaranties to labor and capital in mind—a practical scheme of reorganization and operation of the industry.

Now, as regards the fundamental rights of capital, we think that capital has the right to demand that its investment, insofar as it has been actually and prudently made and honestly administered, should be not only conserved, but, if the public should acquire any or all of the property, that it should reimburse the owners for the actual values as prudently and honestly invested, or, on the other hand, if the public should only operate and not acquire the prop-

erties outright, that capital should receive a reasonable and fair rate of return. It seems to us that the value of the actual investment in whatever way it may be computed—we are not holding to the basis of valuation; it might be some other method. In other words, the problem is to ascertain the investment value—the value of the actual investment and proprietary rights of capital or the owners or investors in the street-railway property can be rightfully ascertained. Furthermore, the actual rate of return which may be guaranteed on these values by the public can be readily ascertained. There is no practical obstacle in the way, in short, to the public satisfying all the just claims of capital, or the owners or investors in the street railway industry, should the commission recommend that the public by any method take the responsibilities for its paramount interest in this industry; I do not mean by ownership or operation, but if the public has to act, all the facts are available or can be available in time for the public to ascertain what are the rights of capital and what fair rate of return capital should receive.

Our further point of view as to the rights of labor is that the employees have as direct and more vital interest in the prosperity of the industry than even the investors of capital. Should street railways become insolvent, the owners of capital might suffer a heavy pecuniary loss. The employees, on the other hand, would lose their immediate means of livelihood. Furthermore, many of the employees have spent a number of years, or a lifetime, in the service of the industry. They have devoted their working years to the acquisition of training and experience which they could not sell as advantageously in other lines of industrial activity, and they may be said, therefore, to have a vested interest in their positions on the street railways which is even more valuable and vital to them than the vested interest which capital has or the owners and investors have in the property.

The employees are, therefore, anxious to have the industry rehabilitated and made prosperous. They are desirous of having the public protected. They insist, however—and too great an emphasis can not be put upon their contention—that the reconstructive policy undertaken must be based upon, and accept as a fundamental preliminary, the rights of labor as accepted by all civilized and leading industrial nations in the treaty of peace with Germany, and the principles which have been accepted and proclaimed by our own Government as those which should govern the relations between employers and employees.

These principles are set forth in the treaty of peace and are briefly as follows:

First, that the guiding principle which should be the concerning principle in the relation of capital to labor is—or in the relations between capital and labor—that labor is not a commodity.

Second, that they have the right of association or the right of collective bargaining. We claim that right should be based on union recognition.

Third, the payment of a living wage.

Fourth, the adoption of an 8-hour day.

Fifth, the acceptance of a weekly rest period, preferably the Sabbath Day.

Sixth, the abolition of child labor and the imposition of such restrictions on woman and child labor as will assure their proper physical development.

Seventh, the principle that men and women should receive equal pay for equal work.

Those constitute the seven principles as embodied in the peace treaty which we claim should be accepted by this commission in any recommendations which it may make for the rehabilitation of the property.

Commissioner WEHLE. Those principles are embodied in the proposed covenant for the League of Nations?

Mr. LAUCK. Yes.

Commissioner WEHLE. Rather than in the peace treaty?

Mr. LAUCK. Yes; in the League of Nations; and the International Labor Conference meets here this month to discuss the interpretation and application of some of these principles at the present time.

Commissioner WEHLE. Will you wish to correct the record on that point, Mr. Lauck, about where these provisions are to be found?

Mr. LAUCK. Well, they are found—not any further than I have been corrected by you. I was using the term loosely. It is embodied in the proposed League of Nations, which is a part of the proposed treaty—at least, thus far it is a part of the peace treaty.

These same principles have been embodied in the principles or constitution of the National War Labor Board, which are reproduced on pages 86 and 87 and which were a part of our policy during the war in adjusting relations between employers and employees.

Now, we have set forth our interpretation of these principles on pages 88 and 89.

In order that there may be no misunderstanding as to the attitude of the employees of the street railways, the principles which the employees insist shall be embodied in any recommendations by the commission as to a constructive program for the street-railway industry may be briefly summarized and further explained. They are as follows:

First, the right to organize, or union recognition.

The time has passed when collective bargaining can or should be interpreted in any other way than as to mean the recognition of trade unions or labor organizations. As urged by the motormen and conductors or by the employees, it means union recognition. They do not contemplate, neither will they accept committee systems promoted and installed on the initiative of street-railway officials, for the reason that they know that any such systems of collective bargaining do not really safeguard the interests of labor, and can not, therefore, permanently endure or be permanently effective.

They demand the recognition of the rights of the employees to organize into labor unions and to deal with the companies with accredited representatives. This does not necessarily mean the adoption of the closed-shop principle, but it does mean that the street-railway managements shall conduct all negotiations as to wages, working conditions, and relations with a recognized labor organization. In localities where the employees of the companies are not already organized into unions, it shall be the duty of the railway managers not to discourage the employees to form labor organizations as a means of dealing with the management.

Our point of view is that the principle as to union recognition is no longer a debatable issue. It has been sanctioned by the society of civilization. Furthermore, it is absolutely essential to that form of cooperation between street-railroad management and employees which will lead to efficient, economical, and stable operations, and, as a consequence, is to the highest degree of real service to the public.

Second, we request or insist that the commission in making its recommendations shall accept as the second principle the establishment, on the basis of a national standard, of a living wage for the employees in the industry.

This, to our minds, is also no longer a controversial issue. As in the case of union recognition, it has been accepted by the enlightened opinion of the civilized world. It is not only essential to the general well-being of the employees, but it is equally essential to the rehabilitation of the industry, for it is one of the necessary conditions to the enlightened cooperation and participation of the employees in making the industry a success from every standpoint.

It also means a great advantage to the localities in which street railways are located, for it would lead to an elevation of the standards of civic life and public conduct among street-railway employees.

Testimony has been submitted during the course of the proceedings of the commission to show that, in order to maintain a minimum standard of health and a reasonable degree of comfort, the earnings of street-railway employees should amount to an average of at least \$2,000 annually. It is not our intention, however, to request the commission to recommend any definite amount as a basis for a living wage; but what we request is that the commission shall accept the principle of a living wage in its recommendations and embody this principle in its recommendations, leaving the adjustment—we know it is not part of the duty of the commission to fix the wage in this industry—leaving the adjustment of the actual amount to whatever means of adjusting such matters as may be recommended by the commission or to the negotiations between the labor organizations and the managers in the industry.

Commissioner WEHLE. I have been unfortunate enough to be absent from some of these hearings in the last day or two. Have you anywhere reduced to another form the result of an average compensation to platform employees of \$2,000? That is, to this form—to what extent would that enter into the cost of operating a car per mile per day, that increase from the average present platform wage to the proposed one which you have in mind which would come to \$2,000 per year; have you figures on that?

Mr. LAUCK. We have not figured that, but I could tell you roughly about what it would be. We are also asking, in the next section, for an 8-hour day; so, assuming an 8-hour day, it would require about 75 cents per hour to the platform employee, or \$6 a day wage.

Now, I think—

Commissioner WEHLE. You mean an 8-hour working-day, or an 8-hour day used for computation?

Mr. LAUCK. An 8-hour actual workday. We are not asking for a basic 8-hour day, but an actual 8-hour day.

The CHAIRMAN. Had you finished your general statement?

Mr. LAUCK. No.

The CHAIRMAN. Will you let Mr. Lauck finish his general statement before you cross-examine him, Commissioner Wehle?

Commissioner WEHLE. Yes.

Mr. LAUCK. The only remaining point which I had to discuss was the 8-hour workday, which we consider also from the standpoint of the employees as an essential preliminary to any reconstruction of street-railway property. This standard is embodied in the principles of the League of Nations labor provision and has also, as I have pointed out in the brief, been approved by the public policy of this Government in all direct work undertaken by the Government, and has also received the direct approval of President Wilson; and we believe that it is a measure which is, not only on economic grounds of production, but also on the larger grounds of the general public welfare, sanctioned by the enlightened opinion of the world.

Along with this also, we claim, should go the further principle that in addition to an eight-hour day should go the opportunity for one day's rest in seven, preferably on the Sabbath Day, as enunciated in the peace treaty.

So those three principles, the eight-hour day, the living wage, and the right to organize—or union recognition—we consider basic and fundamental and essential to any recommendations for the rehabilitation of the industry. Those are the constructive points we wish the commission to consider.

The CHAIRMAN. Mr. Lauck, Mr. Babcock, mayor of Pittsburgh, is here, and desires to make a brief statement and return. Would you object to having him step in at this time?

Mr. LAUCK. Not at all.

The CHAIRMAN. Mr. Babcock.

STATEMENT OF MR. E. V. BABCOCK.

Mr. BABCOCK. Gentlemen: I have a paper which I prepared and would like to read to you. And our city solicitor, or special assistant city solicitor, who has had charge of our transportation affairs for 10 years has accompanied me here and has the details of all our transportation matters on his finger tips up to the moment; and any questions which you would like to put to him concerning any matters pertaining to our affairs, I would be very glad to have you put to him, if you feel that you want them answered.

The street-railway-passenger-transportation problem in Pittsburgh probably is more complicated than in any other large American city. This is brought about largely by the temporary character of the intercorporate relations, and by the natural difficulties arising from the topography of the country, and the great number of municipal subdivisions.

The intercorporate relations present a situation where 208 underlying companies have been temporarily unified by leases, mergers, and stock ownership arrangements resulting in three municipal groups of underlying companies, two of which are operated under short-term operating agreement by the Pittsburgh Railways Co. These agreements may be terminated on three months' notice so that the unification is not a permanent or stable agreement, and because

of various issues of underlying bonds of the original street-railway companies, there is always a possibility of dissolution of the three main units.

This arrangement is unquestionably unsatisfactory, both from the point of view of policy of development and of financial arrangements. It has created an atmosphere of uncertainty of development which frequently makes it impossible to arrange the most economical operating conditions, both with respect to routing, and more particularly with respect to location of facilities for shops, car-barns, operation of unnecessary track and preservation of pure franchise track, etc.

It would seem to be a fundamental requisite in the situation that there should be a single corporation with actual ownership and control of all the physical property of the railway system. Until this is done we can not expect to eliminate needless duplication of track or secure adequate routing arrangements in the Pittsburgh district.

The existing grades and variations in levels in the Pittsburgh district and the narrow streets also materially complicate the problems. In addition to this, there are, in Allegheny County, 57 separate municipalities served by the Pittsburgh Railways Co., all with different municipal governments and each with its own municipal ordinances. It must be recognized that transportation is fundamentally a local problem; and yet with such a large number of separate municipalities it is practically impossible, under existing legislation, for all of these municipalities to act in concert in handling the problem.

That street-railway companies need and are entitled to adequate revenue would seem to be a self-evident proposition. The fundamental difficulty arises in ascertaining how revenues shall be furnished. Experience has demonstrated that increases in fare do not produce equivalent increases in returns, although the signs in this direction are more hopeful to-day than they were in Pittsburgh some months ago. There is, however, a larger problem in this situation than can be included in a mere statement of financial needs. It should be the aim of public officials to keep fares as low as may be reasonably possible in order to secure a large riding habit among the people, the messengers of prosperity. Transportation is not only essential for business, but is a necessity for social life and all the ramifications of the activities of a great city, including amusement and recreation. It seems to be pretty definitely established that a high riding habit is a good index of the general business and social activities of the community and an indication of the general progress and spirit of the citizens thereof.

It is, of course, the natural desire of the financial interests in control of the railways company to increase the fares and, if necessary, reduce the service to a point where they may pay operating expenses and make reasonable returns upon the capital invested. These considerations, if pushed too far, necessarily react against the success of such a plan, and not only result in the failure to secure adequate returns, but become a serious obstacle in the pathway of municipal prosperity.

Public officials must, therefore, make every effort to keep unit fares as low as possible and keep up proper and adequate service. Assistance can be rendered in this direction by making the whole situation known to the public and making them conscious of the

part which they must play in the situation, thereby creating a public psychology which will be friendly and not detrimental to the real needs of the situation. This element would undoubtedly go a long way in increasing the riding habit and in generally supporting and helping the traction companies to answer their problem. Municipalities should also consider the possible suspension or elimination of numerous municipal charges, which are really indirect taxes upon the car riders; and in the present crisis it may be advisable, at least temporarily, to relieve the car riders of these forms of indirect taxes.

So far as reasonably possible, definite assurance should be given of a fair return on the capital actually and fairly invested in the property, so that new capital may be invited and may understand that it will be fairly treated. Street railways, like all other living and growing enterprises, have a constantly increasing need for more money. They must therefore always be in a position to attract new capital to meet the growing necessities of the business, both from the point of view of necessary extensions and from the point of view of keeping the property apace with the development of the mechanical arts. The public will thereby benefit by a lower rate of interest both in return on the existing investment and on future investments if capital is given reasonable assurance of definite returns.

Cities not only compete with other industries for capital in these matters, but they compete with each other; and naturally those cities that give assurance of fair treatment and reasonable return, will have the first call on the moneys which may be available for street-railway purposes.

There is no panacea for the transportation ills of the present day. Regulation by public-service commissions, service-at-cost plans, or municipal ownership will not usher in the day of the millenium in this respect. The transportation problems will always be one of the great, if not the greatest, problems of our municipal life and must be handled in the same manner that all other great industrial and commercial enterprises have been worked out in the past. It is obvious that the State public-service commissions, while satisfactory for other forms of public utilities, can never completely solve the large local problems of transportation in our great cities. Transportation uses the local highways and must necessarily conform to all local developments. It is brought into daily touch with the life of the city in such a way that there must be the closest harmony and cooperation between the local street-railway company and the municipal authorities. This inevitably points to some operating arrangement whereby the local municipal authorities shall be placed in a position to exercise a large amount of control, giving the city government a voice as to proper standards for transportation service and operating conditions.

The use of the service-at-cost plan, which is now strenuously proposed in behalf of the street railway companies, has many elements to commend it to favorable consideration. It, however, possesses one element which may prove that it is not the final solution to the difficulties—namely, that it robs the operating company of the incentive to secure the best operating economies and keep down the cost of the service. Various expedients by way of adopting annual budgets and by giving the local municipal representatives a voice in the fixing of the budget have been suggested, and on the

other hand, incentives have been suggested to reward good management by operating bonuses and by dividing excess profits; but all of these plans are quite unsatisfactory and give no assurance that they will accomplish the desired results. Yet it may be that no better plan can be evolved to carry the business across from the unregulated age to the present regulated age than that of service at cost with arrangements providing for possible municipal ownership under reasonable conditions of purchase. If a service-at-cost plan could be developed whereby good judgment could be fairly rewarded, then no serious objection could be raised to the plan.

Theoretically it seems that the best possible arrangement to meet the situation would be to have municipal ownership with private operation. I have said theoretically, because of numerous practical difficulties which present themselves in such a program. It may be plainly demonstrated, however, that such a plan, if definitely stabilized and assured, has very great advantages over any other arrangement and eliminates all of the controversial atmosphere which now exists between private capital and the public. It would permit of financing on much lower interest rates than financing by private interests. It would give the municipality complete control of its own development and place in its hands the key to its own destiny. Coupled with private operation it would produce all of the advantages of private, as contrasted with municipal or public operation with its associated political entanglements, and if combined with a plan whereby, at fixed periods, say every 10 years, the operation of the system was let to the best bidder, it would insure good service at reasonable cost.

Under such a plan and with proper municipal control established, standards of service would be possible and we would still have incentives for effective and economical operation, and good management would have its opportunity to be adequately rewarded. This plan may be criticized as being Utopian, yet at the same time, it does not rob the enterprise of incentives for good business management which are likely to be found in a service-at-cost plan or in a municipally operated system.

Speaking for the great industrial district of Pittsburgh, I can assure the commission that we are giving careful consideration to the problem which is presented there. We have gone into this matter thoroughly, and at a considerable expense have presented to the public-service commission evidence relating to all matters affecting the fair value of the property and all questions relating to routing, transfers, and service generally. We hope to receive a decision from the commission as to the fair value of the properties shortly. With this matter definitely determined and behind us, we have every reason to believe that some substantial, definite, and satisfactory progress will be made along the lines heretofore indicated.

I feel sure that the people of the Pittsburgh district will be willing to pay a fair price for adequate street-railway transportation when the matter has been fully presented to them and the ghosts of watered stock and of high finance of past days have been laid. The essential problem is one of public education and of establishing the business upon sound and just financial values with complete harmony between the municipal and company representatives,

and the right in the city to control its streets and its own development.

I did not know just exactly what I was expected to say or do here. I prepared this statement, which is rather historical of what we have done and what we aspired to do, and what we are really doing right now to settle our transportation problems. It is the biggest one in our city, and I suppose it is of every city.

We have had our troubles, very serious troubles. We went through a strike last month, and if you want to know about that, you are welcome to its history.

The CHAIRMAN. Is that settled?

Mr. BABCOCK. Yes.

The CHAIRMAN. On what basis?

Mr. BABCOCK. Our men asked for an increase of 12 cents per hour and went out, and were out for a couple of days, and entered into an agreement with the receivers of the street-railway company to appeal their case to the War Board for settlement. That was in May. That was a signed and sealed agreement, and the War Board heard their case and rendered a verdict giving them 6 cents per hour, or 54 cents maximum wage.

The men were dissatisfied with that and left their jobs again. They were out a couple of weeks, during which time great effort was made on my part to harmonize their differences and get the receivers and the men together, and get the men back to work; and the men finally acknowledged the error of their ways—that they had violated an agreement which was a positive, signed agreement, and they went back to work at the end of two weeks.

Mr. Mahon here was instrumental in helping us to solve that problem; and it was satisfactorily and happily settled; because strike breakers were introduced, and it incensed the men and part of the public, and we had before us a long-drawn-out strife.

I had a good deal to do with the settlement of both of these walk-outs or strikes. I consider that the strike was well handled. There was no material disorder. We had one little rumpus, but it did not destroy any property or hurt anybody. As I said before, it was happily settled, and the men went back to work, and are there now, and I think satisfied.

The CHAIRMAN. During the two weeks were the cars completely tied up?

Mr. BABCOCK. Yes.

The CHAIRMAN. What means of locomotion was furnished the people?

Mr. BABCOCK. They resorted to trucks, automobiles, and walked, and many of the people did not get to their offices at all. There was great confusion and congestion. They managed any old way they could.

The CHAIRMAN. From the experience you had in the strike and other studies which you have made have you reached any conclusion as to whether or not a street-car system is necessary for a city?

Mr. BABCOCK. As far as I am concerned, our city would not be worth a 5-cent piece if we did not have a transportation system.

The CHAIRMAN. Is there any other means of locomotion that can supply the service furnished by street-cars?

Mr. BABCOCK. No, sir.

The CHAIRMAN. Then, as far as Pittsburgh is concerned, it is an essential part of the social system?

Mr. BABCOCK. Absolutely.

The CHAIRMAN. The public-service commission has before it a recommendation made by a board of engineers as to the value of the property?

Mr. BABCOCK. Yes, sir.

The CHAIRMAN. Do you know what recommendation was made?

Mr. BABCOCK. By the board?

The CHAIRMAN. Yes.

Mr. BABCOCK. The board did not agree. Representatives of the city and the representatives of the transportation company did not agree and appealed to the public-service commission and then they heard the case, but have not rendered a verdict as yet.

The CHAIRMAN. What is the difference between the representatives of the company and of the public on that?

Mr. BABCOCK. What is the difference between the representatives of the two sides?

The CHAIRMAN. Yes.

Mr. BABCOCK. The city's valuation was \$48,000,000 and the street-car company's valuation was \$70,000,000.

The CHAIRMAN. What is the capitalization?

Mr. BABCOCK. You will have to get those technical figures from Mr. Robinson.

The CHAIRMAN. Can you give that to us, Mr. Robinson?

Mr. ROBINSON. It is very difficult to state, because of the fact that a good many interests are tied together. The total amount of outstanding stock is approximately \$160,000,000. A good deal of that is duplication of stock-interest control. The actual amount which they claim is not duplicated in any way is about \$120,000,000.

The CHAIRMAN. In fixing this value did they follow the ordinary method of taking an inventory of the property and attempting to place a value on all of its different units?

Mr. ROBINSON. We would be very glad to file with the board printed copies of their report.

The CHAIRMAN. We asked our secretary to send for it. If you will see that that is done, it will relieve him of that.

Commissioner GADSDEN. There were four distinct methods of valuation, were there not, which the engineers were to follow?

Mr. ROBINSON. They took seven bases of consideration. They took historical cost as one basis. They took six bases of reproduction cost.

First, the basis which was the prices of materials at the time the particular article in question was put into the system, which, in a sense, was a check against basis No. 1, to ascertain historical costs.

Basis No. 3 was a reproduction on the fair, normal prices prevailing a 10-year period ending 1915.

Basis 3-B was a basis of estimating what the trend of the curve of prices would be—that is, taking the curve of prices without the influence of the war conditions, to ascertain, if possible, what prices would have been in 1918, at the time of the appraisal if there had been no war to disturb the normal situation. That was based upon a 20-year average, running back from 1915 or 1916, and showed, I

believe, approximately an increase of 3 or 4 per cent each year. That actual percentage was about 10 per cent higher than the average of 1906 to 1915.

Basis 3-C was based upon a 5-year period, beginning in 1914 and ending in 1918, which gave you approximately three years, or a little more of full war prices, you might say, or rather prices very materially affected by the war, and then the prices of 1914-1915, 1915 being partially affected by the war.

Basis 3-D was a basis for the five years commencing in 1918 up to 1922 which, of course, included at the time it was made a year and a half, because that was checked up to July of 1919, and gave you a year and a half of actual prices, estimating the period beyond; and therefore, in that sense, was rather a prophecy with respect to that feature.

Basis 4 was the basis of the prices at the extreme peak of war prices, which obtained to April 1, 1918, and was the best estimate that they could make at the time of what it would have cost under, you might say, the maximum conditions of cost during the war period.

All of those bases were considered, and the matter was referred to the public-service commission to decide, the board having agreed upon these bases to decide what was the fair value of the property.

The CHAIRMAN. You will supply us with those recommendations?

Mr. ROBINSON. Yes.

The CHAIRMAN. Mr. Mayor, have you reached a conclusion as to whether street-car companies should be relieved of paving requirements?

Mr. BABCOCK. Our United States court reached it for us and relieved the receivers from that responsibility. In specific cases, as far as our immediate development is concerned, we will have to proceed along that line, doing our own paving.

The Chairman. As a matter of permanent policy, should or should not street-car companies be relieved of that cost?

Mr. BABCOCK. The city has always been relieved of it in the past. It is rather a new proposition for us. I do not think it has a great deal of significance either way; because the car rider has to pay for it.

The CHAIRMAN. It becomes a question of municipal policy?

Mr. BABCOCK. Yes. If you take off the car rider, and some fair method is worked out, it just saves them that much; they have to pay it one way or another—by taxation or by the fare they pay.

The CHAIRMAN. Has the public expressed its feeling in any way upon that question?

Mr. BABCOCK. No. The only way that the public has had a chance to get in this year on our transportation affairs was the submission to them in our general-improvement program, which was ratified by the people on July 8 of a sufficient amount to take our downtown street-cars off the track and put them underground in the downtown loop.

Our purpose is to build it and lease it to the railway company or to some other successor of theirs. They are in such a chaotic condition now that we do not know what we are up against.

The CHAIRMAN. You say the paving is not a matter of very great significance. What is your own opinion upon that question? Should it or should it not be charged against the company?

Mr. BABCOCK. We have been used to the railway company's doing it. It kind of slipped in as an actual condition. Now that we are faced with another proposition, it does not look like a very serious proposition to change to the other method. I do not know that I have a fixed opinion on that—as to which would eventually be the better.

The CHAIRMAN. Does the city require the company to sprinkle the streets or any part of them?

Mr. BABCOCK. No.

The CHAIRMAN. That charge is borne by the city?

Mr. BABCOCK. That charge for sprinkling the street is borne by the railway company, and in the past they have paid a certain amount for cleaning their portion of the streets. That, under this receivership, has been repudiated—that agreement.

The CHAIRMAN. As a matter of permanent policy, should the railway company be charged with the cost of sprinkling those streets?

Mr. BABCOCK. That is a very debatable question. I don't know.

The CHAIRMAN. You do not care to express an opinion upon that?

Mr. BABCOCK. No; I do not care to. I do not have a fixed opinion.

The CHAIRMAN. Have you any idea about the franchise charge? Should that be an inflexible charge, fixed by ordinance or by law, or should it be subject to change, according to the operating conditions?

Mr. BABCOCK. Will you answer that, Mr. Robinson?

Mr. ROBINSON. I would assume that what the chairman means is whether or not there should be a fixed, definite fare prescribed in the franchise, or whether the matter should be left open to necessities, economic and financial.

Mr. BABCOCK. I should say that it should be left open. I think the history of the last year or two—what we have gone through—would make it almost necessary to leave it open and not to fix it.

The CHAIRMAN. It has been reported to us—

Mr. BABCOCK. You have to arrive at some fair, decent practice by some method, however, before you get there.

The CHAIRMAN. Oh, certainly. It has been reported to us that your street-car company is subject to the regulation of the public-service commission of the State, and that the municipal authorities have practically no control. Is that so?

Mr. BABCOCK. What do you say about that, Mr. Robinson?

Mr. ROBINSON. That question is a little bit difficult to answer by yes or no.

The facts are that under certain franchises given to the underlying companies of the Pittsburgh Railways Co. questions relating to whether or not, for instance, the fixed fare was a permanent condition of the franchise, where the public-service commission had been created by an act of the legislature, have been passed upon by the public-service commission and also by the superior court and are pending in the supreme court; as to whether or not that provision of the constitution which provides that no street-railway company shall be constructed without the consent of the local authorities has given the right to prescribe the conditions, the public-service commission

and the superior court having decided that, under the public-service law of Pennsylvania, the public-service commission under the theory of police power can set aside a term of an ordinance which in their judgment would make it impossible for the company adequately to perform its public functions.

The CHAIRMAN. That raises the question as to whether that word "consent" gives to the municipality the complete control over rates.

Mr. ROBINSON. Exactly, and also control over value factors which might affect service or rates; control over rates being, of course, taken in the theory that it affects service.

The CHAIRMAN. Now, Mr. Mayor, do you believe that the public as well as the companies will be better protected by exclusive regulation over the rates, the accounting, the extensions of new lines, and service conditions generally, left entirely with the State commission?

Mr. BABCOCK. Do I believe the public will be better served by these things being left with the public-service commission?

The CHAIRMAN. Yes.

Mr. BABCOCK. No. I think that the municipal authorities ought to have a hand in the game there somewhere.

The CHAIRMAN. Just what part should the municipal authorities play?

Let me put it in this way: Should the municipal authorities have anything to say as to the rates of fare to be charged?

Mr. BABCOCK. I think they should; yes.

The CHAIRMAN. To the exclusion of the State commission?

Mr. BABCOCK. No; the State commission always appeared to me as being a good governor to the engine. If we could not agree on a rate between the transportation company and the civic authorities, they might help out.

The CHAIRMAN. Then I take it that you feel that the municipal authorities should pass on the question of rates first and then either party might appeal to the State commission and try it out there?

Mr. BABCOCK. That is the way we have done it; that is the way I am educated.

The CHAIRMAN. Do you believe in the principle?

Mr. BABCOCK. It has worked out all right.

The CHAIRMAN. Do you believe the same principle should apply to the questions of extensions of new lines?

Mr. BABCOCK. I do not know why the municipal authorities should not have the control of that situation, too.

The CHAIRMAN. Subject to an appeal to a State commission?

Mr. BABCOCK. Yes; along the same lines. They know what they want, and they know what they ought to have; and if they are attending to their business, they know it better than the public-service commission.

The CHAIRMAN. Then, generally speaking, you believe that all these questions affecting the rates and the service and accounting should be left with the municipal authorities subject to the right of appeal by either party to a State commission, which shall be permitted to pass upon the question?

Mr. BABCOCK. Well, I would answer your question directly, yes. But it should be by fair dealing all the way through.

The CHAIRMAN. Oh, certainly.

Mr. BABCOCK. The capital invested should be treated fairly, and labor should be treated fairly, and everything else, as a basic principle to start on.

The CHAIRMAN. I presume all of us have to concede that regulation means the utmost fairness to capital and employees and to the public.

Mr. BABCOCK. Yes.

The CHAIRMAN. You made some reference to the cost-of-service plan and thought that would work out all right in Pittsburgh?

Mr. BABCOCK. With one objection that is in that paper there. I would like to have Mr. Robinson speak for me on that point.

Commissioner SWEET. I understood you to make the point that it took away incentive.

Mr. BABCOCK. Yes.

Commissioner SWEET. But I think in your paper you outlined a plan by which incentive might be provided for upon the management in connection with a cost-of-service plan, didn't you?

Mr. BABCOCK. If that incentive was preserved, I do not see very much objection to that plan.

Commissioner SWEET. You would rather favor it?

Mr. BABCOCK. Yes.

The CHAIRMAN. How are you going to provide for that incentive?

Mr. BABCOCK. How did we figure that out, Mr. Robinson?

Mr. ROBINSON. As I understand, answering your inquiry, in discussing this with the mayor, our idea is this: That up to the present time, so far as we had any knowledge, there had been no plan evolved which occurred to us to be satisfactory in the way of meeting that particular and rather serious objection.

We are reasonably familiar with the plan that has been adopted in Montreal, where they have an operating bonus, I believe. That, however, is dependent entirely, if it is analyzed, on a point where it becomes a question of individual judgment as to whether or not the company has met a definite budget or not, and leaves it practically in the control of an individual commissioner or commissioners to decide that question, and that lays itself open to complications which seem to us not to meet the situation.

The Cincinnati arrangement, while in a sense fairly meeting the problem in the sense that it divides certain excess profits, nevertheless, in a situation where there is a very rapid change in the general economic and financial conditions, entirely fails to meet the situation, because, being predicated upon certain assumptions that a certain rate of fare, a certain amount of return, certain costs, etc., are the bases of judgment, if those bases are violently changed by war conditions, or by any economic or other conditions, or by mechanical art developments which might be incident to the one-man car, or otherwise, then the whole arrangement is immediately distorted, and the thing you were trying to do, which was to reward good management, may, after all, prove a punishment for an economic condition over which they have no control, or may prove a gift because of factors over which they have no control.

Those things I merely suggest because, so far as the mayor and myself understand, they have not been met.

The CHAIRMAN. Speaking by and large and as a permanent policy, would the people of Pittsburgh, as well as the industry, be better off under a cost-of-service plan, properly safeguarded so as to encourage

initiative, or under some other form of regulation by which the municipality has control of rates, extensions, accounting service, subject to appeal to the State commission?

Mr. BABCOCK. I do not know.

The CHAIRMAN. You have no opinion upon that question?

Mr. BABCOCK. Not one sufficiently fixed to give you.

The CHAIRMAN. That is all I have to ask.

Mr. BABCOCK. I have been mayor for a year and a half, and I am not a traction expert. I have done the best I could with it, from a layman's standpoint.

Mr. Robinson has been handling a sort of a contest with the street-railway company for 10 years past in representing the city, and he ought to know those things better than I do, and he does know them better than I do.

The CHAIRMAN. Have you reached any opinion as to the best method to work out the social problem as between the company and its employees?

Mr. BABCOCK. No. Have we given that element of it very much study, Mr. Robinson?

Mr. ROBINSON. I do not think that particular question has come to the front very seriously in Pittsburgh, as far as I know.

The other aspect of the question that is involved in your suggestion, I take it, Mr. Chairman, is whether or not we have considered the social and the general community factors involved in transportation over and above the questions of fare. The housing question in relation to that sort of thing, of course, has been given a good deal of thought.

The CHAIRMAN. You now have the zoning system there?

Mr. ROBINSON. No; that has been abolished.

The CHAIRMAN. When was it abolished?

Mr. ROBINSON. The 1st of August. We never did have the zoning system in any true sense of the word. We had a preference, but never a zoning system.

The CHAIRMAN. And the territorial preference has been abolished?

Mr. ROBINSON. The 1st of August.

The CHAIRMAN. What was the objection to that, if any?

Mr. ROBINSON. To the territorial arrangement?

The CHAIRMAN. Yes.

Mr. ROBINSON. I should say the first and most important is psychological. The public at large resented the idea that certain people in certain sections could get a ride to longer distances for 5 cents than they could ride for 7 cents, and there was always in the public mind a feeling of comparison. If you wanted to go to any of the satellite centers of Pittsburgh, which were outside of that inside zone, you had to pay 7 cents, without regard to whether you were riding one block, six blocks, or a mile. If you wanted to go to any of them inside of the preferential zone, which was 2 miles, around the business district, you could ride for 5 cents.

You could even ride across that district on a transfer which might be 3 miles; whereas, if you wanted to go from the Highland Park section to East Liberty, which is a satellite center out of Pittsburgh of a mile, you would have to pay 7 cents. That apparent discrimination was one of the things, I think, that defeated the plan.

The CHAIRMAN. Did the system add to the revenues of the company?

Mr. ROBINSON. That particular plan, which resulted in an average fare of $6\frac{1}{2}$ cents, as against a previous fare of a little less than 5 cents, increased the total revenues about 15 or 16 per cent.

The CHAIRMAN. And as the policy continued, did the riding habit increase?

Mr. ROBINSON. There were so many disturbances of the factor—war and the readjustment immediately following the armistice—that it was rather difficult to say, although the general impression was that a number of the first disturbing factors were correcting themselves.

For instance, in the early days with the 5-cent and 7-cent zones, it was discovered that all the calculations as to the percentage of people riding for 5 cents and 7 cents were disturbed by the movement of the people who were walking short distances in to the 5-cent zone. There was a much larger percentage of 5-cent passengers than reckoned upon and a considerably less percentage of the 7-cent passengers. That factor, however, was gradually correcting itself.

The CHAIRMAN. How did the company view the change in their system?

Mr. ROBINSON. You mean from the point of view of operating difficulties?

The CHAIRMAN. No. Did they favor or oppose the change from the territorial system to the flat fare?

Mr. ROBINSON. They made the change themselves on their own motion.

The CHAIRMAN. They did?

Mr. ROBINSON. Yes. It is now $7\frac{1}{2}$ cents by ticket—four tickets for 30 cents, or 10 cents cash.

There is a decided discrimination against the cash rider, the casual rider, to the extent of $2\frac{1}{2}$ cents; they made it; and in that connection I can give you some very recent statistics offered at a hearing last week before the public-service commission, which indicates that the gross revenues of the company will be increased 35 and possibly 40 per cent over the revenues under the 5-cent fare.

The CHAIRMAN. Will you supply us with those data?

Mr. ROBINSON. Yes. It is really quite close to the theoretical increase of 50 per cent.

Of course, there is another corrective factor in there which we can not entirely estimate, and that is that in 1917 they were charging a 5-cent fare and in 1919 they were charging a $7\frac{1}{2}$ -cent fare.

Pittsburgh has grown considerably in that time, and the normal curve of growth would indicate at least 3 per cent, so that instead of an increase of 50 per cent, there should have been at least 56 per cent, against a maximum of 40; so that there is a 16 per cent falling off, we will say.

The CHAIRMAN. What per cent of the riders use the books?

Mr. ROBINSON. Almost all. The 10-cent riders, I think, were about 5 or 6 per cent.

The CHAIRMAN. Practically a negligible factor?

Mr. ROBINSON. Yes. Coupled with that, I should also explain that there is a transfer privilege that goes with the 10-cent fare which still preserves, in part, that old preferential zone area, be-

cause in that area those persons who start within the area can transfer within the area for 10 cents and do not have to pay two 7½-cent fares.

What percentage of that particular riding makes up the 10-cent fare I do not know, but it is reasonable to argue that a considerable part of the 10-cent fare is of that type and that, therefore, the percentage of persons actually paying the full 10-cent fare is very much less than 56 per cent.

The CHAIRMAN. Do you believe the company would be able to maintain itself on the present fare and pay its fixed charges?

Mr. ROBINSON. I can answer that in this way: The estimates made by the representatives of the city and boroughs on the conference in the valuation before the public-service commission estimated the total cost of operating the company for the next year, and included in that the depreciation reserve of about \$1,000,000, that had not heretofore been materially allowed for; and they have also estimated, predicated upon figures now available for the period beginning the 1st of August and running up to the 22d of September, taking out the 12 days when the strike was on—they have estimated the returns predicated upon that assumption, and upon the allowances that should be made and upon the estimate of all the costs of operation, which allow for all the War Labor Board's increases, and which also take into account all the judgments that they have with respect to probable costs, there would be on that showing a small deficit, which will run between a half and three-quarters of \$1,000,000; but at a maximum it would not run more than \$900,000.

As you can readily appreciate, an estimate which is predicated upon one month and 22 days, less 12 days for the strike, and following a strike period for 7 or 8 days, is not a final figure to determine the question of next year's revenue upon; and it is reasonable to assume that the strike situation did materially reduce the income, and that for a period following the strike the riding habit was subnormal; so that, if you make allowances for that, it is a fair and reasonable assumption that the present fare may meet the situation; subject, however, to this one other factor that perhaps you may have heard already, or know of: The city of Pittsburgh, as the mayor indicated, has a very large program for municipal improvements, which involves the expenditure of some \$22,000,000, and which involves the widening and changes in the grades of streets on which the cars are located, which means that the company must make very substantial contributions by way of the realignment of track, and no allowance has been made in the calculations for their share of that part of the work.

The CHAIRMAN. Has the amount of capitalization of that property had any influence upon the public relations to the company?

Mr. ROBINSON. Undoubtedly.

The CHAIRMAN. What effect will the valuation by the commission of this property have in settling the fare as well as the wage problem there?

Mr. BABCOCK. I think it will affect the riding habit very much. It will take away the incensed feeling the public has had against the railways company on account of a supposed overcapitalization.

The CHAIRMAN. Then, as soon as the people know that that property has been valued by an impartial tribunal, they will be willing

to pay a fare that will yield a reasonable return on the capital invested, pay the operating costs, and so forth?

Mr. BABCOCK. I think so.

The CHAIRMAN. Then, is not that one of the prime things to do in all these street-railway problems—to determine the value of the property first?

Mr. BABCOCK. We have considered that to be our prime duty. We will speak for ourselves on that.

The CHAIRMAN. That is all.

Mr. BABCOCK. That certainly is a point that we have been working to—courageously working to; and it is a great obstacle.

Commissioner WEHLE. Have the officials of the city of Pittsburgh formed any definite policy with reference to the zone fares from a center?

Mr. BABCOCK. No. The company put in these regulations and was suffering in every kind of way and was rendering inadequate service, and for a year has not paid any dividends to its stockholders and interest on its bonds and was struggling along, and we did not object to their establishing a new rate and an increased rate of fare, and it had not been brought out.

Commissioner WEHLE. I think perhaps you misunderstood my question, Mr. Mayor. What are your views about the advisability from a social or community point of view of establishing zone fares?

Mr. BABCOCK. I am opposed to them.

Commissioner WEHLE. Why?

Mr. BABCOCK. I think they build up certain communities. We are a great community of communities. If you have that zone fare in there you are going to build some little town up in here and some little town in there, where if we have a flat fare we will mix them up and they will be carried in between as well as in these spots.

Commissioner WEHLE. When I say a zone fare I mean zone fare as ordinarily understood; say that the center of Pittsburgh has a central zone and then the establishment of a new zone, say 2 miles from the center of the town, with an additional fare to be paid in order to reach a point from the center of the city in the further zone.

Mr. BABCOCK. I would rather have a practical flat fare that will carry them over the whole city and an extra price for the transfer, or something like that.

Commissioner MAHON. How long do you think that flat fare ought to extend, Mr. Mayor?

Mr. BABCOCK. Well, 5 or 8 miles—a distance to take in the major portion of our district. For a 12 or 15-mile haul, which you know they can not cover, they ought to have some other regulation to cover it, which they have now. But I am impressed that a flat rate which covers the major portion of the distance is better for the community than subdividing it and having a rate which will have the tendency to keep somebody out in East Liberty from going to town or somebody from some other little borough from going to town, and they will stay at home, which will be against our best interests. We have a wonderful center in Pittsburgh, perhaps different than any other city. We have the topography of the district to contend with, and everything is centered in one place. That part of the city pays the taxes, too. You can not rob that part to build up something else.

Commissioner MAHON. I was interested in another thing in your statement. You said that the service-at-cost would rob the operating company of its proper management. I can not understand what you mean by that.

Mr. BABCOCK. Explain that, Mr. Robinson.

Mr. ROBINSON. Our thought was this, that if the management is definitely assured of receiving a certain rate of return, no more and no less, and it is practically guaranteed by the plan, it makes no difference whether it runs well or poorly, and that under those conditions necessarily they have no particular incentive in trying to keep the costs down. If, for instance, one-man cars would be developed as a practical operating arrangement in Pittsburgh the management would not necessarily have a great deal of interest in putting those in. Or if experiments were necessary to determine in certain things, they might say, "Well, we will not jeopardize the security we are in. We would rather not experiment." Whereas, if they had an incentive to gain a reward by those things they would be much more inclined to experiment and try them out and reroute and do things of that kind.

The trouble with the cost-of-service plan, it seems to me, it offers no check against many forces which naturally tend to very much increase the cost of service, because the company, having no direct interest in those costs, necessarily would not try to keep them down. They might, for instance, increase their pay rolls very materially, because it would mean nothing to the operating management, and, of course, the pressure to increase those is constant. It is the inherent danger which attaches to a system which more or less guarantees the returns without providing any incentive to keep the costs down.

Commissioner MAHON. You would have the same control over that that you have now, would you not?

Mr. ROBINSON. Well, no; because at the present time under our, as we call it, regulated—and yet, in a sense, it is not very much regulated—capital, if it can earn it, it would expect to receive certain rewards. I think the same criticism might, to a certain extent, be made of commission regulation—that it decides a definite return shall be made upon money and a certain amount of investment shall be allowed for—and I think that the same thing that attaches to the cost-of-service plan in a way also attaches to commission regulation.

Commissioner MAHON. You have proposed municipal ownership of the property as the solution, have you not?

Mr. ROBINSON. We suggest that.

Commissioner MAHON. How are you going to regulate that, then, in 57 communities in which these roads operate or 57 municipalities that are equal?

Mr. ROBINSON. Our theory was that we would create what is known as a metropolitan district; and there was introduced at the last Legislature of Pennsylvania an amendment to the constitution of Pennsylvania which makes Allegheny County a metropolitan district for certain purposes of that kind.

Commissioner MAHON. You think it would make one zone-fare system work, then, in 57 municipalities?

Mr. ROBINSON. Not at all. I do not understand it is the mayor's idea.

Mr. BABCOCK. That would cover McKeesport and Homestead, which would be a distance of 15 miles. You could not do that. You could go to Wilksburg—that would be 8 miles; call that the limit on one side, and Bellevue on the other. Are you familiar with Pittsburgh?

Commissioner MAHON. Somewhat; yes.

Mr. BABCOCK. It would be halfway out there. You could not possibly ride a 15-mile haul with a $7\frac{1}{2}$ -cent fare.

Mr. WARREN. I did not get that estimate of Mr. Robinson's of \$500,000 to \$900,000 after paying a return—

Mr. ROBINSON. A return of 7 per cent on \$48,000,000, which was the estimate of the engineers for the city. The company engineers estimated a 7 per cent return on \$70,000,000, the additional amount, with certain other allowances; they asked for depreciation, etc., of about a million and a half.

Mr. WARREN. Did that include a return on the \$48,000,000?

Mr. ROBINSON. Yes; 7 per cent on \$48,000,000.

Mr. WARREN. In addition to all the other costs?

Mr. ROBINSON. Yes.

The CHAIRMAN. I am not sure that the record shows the name of your associate, Mr. Mayor.

Mr. BABCOCK. Mr. Charles K. Robinson, special city solicitor.

The CHAIRMAN. We will now stand adjourned until 8 o'clock to-night.

(Whereupon, at 5.05 p. m., an adjournment was taken until 8 p. m.)

EVENING SESSION.

The CHAIRMAN. Please come to order. Mr. Robinson, will you please take the stand?

STATEMENT OF MR. CHARLES K. ROBINSON.

The CHAIRMAN. I am informed, Mr. Robinson, that you have made quite a study of the cost-of-service plan; and the commission would be very pleased to have the benefit of your investigation, and I will ask you to make it as brief as you can; and if you wish to supplement your remarks by a written statement to be filed with the commission later, you may do so.

Mr. ROBINSON. Only as an incident to the study of the Pittsburgh problem; in that connection I have made some study of the cost-of-service schemes that have been in force in Cleveland, Cincinnati, and have discussed it with a number of the men who have been identified with the creation of the Montreal plan, besides, of course, having studied the problem in the sense that I have read the literature on the subject.

To begin with, I take it that it is an absolute prerequisite of the cost-of-service scheme that you should have a valuation, and that valuation should be one that fairly reflects the investment that has been put into the property. In other words, I think it would be a fundamental mistake to start a cost-of-service scheme without having the valuation, because you would immediately start with the suspicions, at least, probably well grounded in many cases, that there

was excessive valuation, and you would rob it of one of the elements that you are most anxious to secure, which is the general favor and approval of the public; and you would not escape from the criticism which is now heaped upon the companies because of the overcapitalization of the past.

That element in the situation seems to me to be fundamental.

Commissioner WEHLE. How would you make that valuation? Upon what principle would you make your valuation?

Mr. ROBINSON. As a representative of the public interest, having appeared as an attorney advocating certain propositions, I suppose someone might say I was influenced by the fact I have taken sides.

Commissioner WEHLE. Well, you represent the public.

Mr. ROBINSON. I have personally, of course, always put the emphasis upon the actual investment in the properties and upon those bases of reproduction which are based upon the normal situations undisturbed by excessive war prices, subject only to the exception that, where money actually spent during the war period has been put in the increased costs, due allowance, of course, should be made for the actual expenditures, keeping in mind all the time, of course, the investment or cost. Because, after all, when you use the words "service at cost" there seems to be no logic in the situation unless you say that it means cost to the investor or cost to the capitalist as well as cost to the public. There is no more reason why cost should be applied as against the public than why it should be applied in a sense against the investor; and that situation appeals to me personally for another reason at the present time. In the past the companies have accepted franchises with many conditions which attach to the question of fares and attach to the condition of these obligations relating to paving and various municipal charges.

They now appear before the public and make the contention, properly, that they are public servants and the performance of those conditions is no longer possible. They will continue to perform their public duties, and they say, in the name of the public that they are serving, that they should be relieved of those things, and it seems to me in the situation which has arisen that there is a moral and ethical responsibility on the part of the companies to ask only that they should be allowed to receive a return upon a fair estimate of cost.

Now, I do not necessarily mean that that means the cost in a pure naked sense of actual investment. You may have to consider the cost of the business as well as the investment. Those are two aspects of the situation.

Commissioner WEHLE. What do you mean by the cost of the business?

Mr. ROBINSON. I mean by that that the company may have gone through a period when it sustained very great losses for which it may not have been responsible; it may or may not have been depending on the wisdom and judgment of the enterprise. But I mean to use that expression, and I use that by way of illustration only, to suggest that sometimes merely only the cost of the actual present company is not always justice to the company. I had in mind, in referring to that, a broader aspect than merely the cost of the physical property, even with an allowance made for reasonable overheads, and so forth.

And now, with respect to the element of the service-at-cost plan, which deals with the question which was discussed this afternoon by the mayor, as to the failure of the service-at-cost plan, as such, to lay the door open for incentive in the way of keeping the cost down and developing operating economies, I have given some thought to that question, and while I did not formulate the suggestion necessarily as indicating my final judgment or as one which would entirely meet the situation, it has seemed to me that a plan which would have this aspect to it, that this arrangement would come nearer meeting it than a number of the plans that are now in force.

Under the cost-of-service plan, which in a sense is a guaranty of return, I take it that capital should receive a less return than it would under a theory where the commission merely said: "You are entitled to receive a certain amount, and fight your way through the wall of opposition of the general public," and where they would not be relieved of any local burdens which I assume should go with the cost-of-service plan; and therefore with that reasonable assurance of return there would be a lower rate of return. It has occurred to me if you could work out a plan—and this is the way it occurred to me to work it out—to produce some incentives for economies of operation and keeping the costs down—for instance, we will say that at the present time under a cost-of-service plan as estimated upon the budget system, that an 8-cent fare would produce the proper return and give the necessary return to capital and provide the necessary depreciation returns and take care of the increased costs, and so forth. Now, we will say, just by way of illustration, because it may or may not be reasonable, that a 6 per cent return upon the determined fair value was a fair return under that basis, adopting the Cleveland arrangement as it exists in the moment—now, supposing, we will say, that by reason of various developments in the mechanical arts, certain expenditures could be made which would give reasonable assurance that they could cut the fare down to 7 cents. We would like to have it down to 7 cents, of course, and at the same time something ought to be done to encourage them to do that.

My thought was that, in that case, it could be provided that the return, instead of being 6 per cent, would be increased by some millage or some per cent. And my suggestion was that, by way of illustration, to say it would be 4 mills for each cent reduction in fare. The company would then receive 6.4 per cent return and for a reduction to 6 cents it would receive 6.8 per cent. It would probably be advisable under such a plan to provide that there should be a maximum. If it was figured on a basis of going to 5 cents, for instance, it would under that arrangement go a little above 7 cents. Perhaps 7 cents would be a fair maximum, perhaps not. That depends on other factors.

The CHAIRMAN. Would there be any danger of the company's sacrificing maintenance and repairs for the purpose of getting a higher return?

Mr. ROBINSON. Yes; but I am assuming, of course, on that point, that the budget controls that, and if the budget is not spent, of course, that is another factor in the situation. And I take it that all these plans must call for the presence of a local commission in whom we

would have to place a great deal of responsibility, and, of course, it would be its responsibility to see that certain standards of service were maintained and that certain expenditures allowed for were made. And if those expenditures were not made, I take it nothing would come out of that as an element of return. That is, you could not possibly, by robbing your budget in the way of expenditures, make up additional earnings which would enable you to produce a lower fare.

Commissioner MEEKER. Would you give to the commissioner of street railways power to deal with the employees to settle upon wages and conditions of labor and hours of labor?

Mr. ROBINSON. That is a question that I have discussed with Mr. Sanders, of Cleveland. I know his position. He thinks that the Cleveland arrangement is deficient in not making the provision.

The CHAIRMAN. Does he believe in having the city negotiate with labor on wages?

Mr. ROBINSON. Yes, sir.

Commissioner GADSDEN. Yes; he so testified before us.

Mr. ROBINSON. My own position, frankly—although I do not say I have thought it through—is that I should be inclined to think Mr. Sanders was right about it. His arguments rather convinced me, and I might say, that in the negotiations that we have had in Pittsburgh on this very question between the representatives of the public and the company that question has arisen.

The CHAIRMAN. Is the cost-of-service plan a live issue in Pittsburgh?

Mr. ROBINSON. Very much a live issue. Negotiations are under way now that may follow the valuation looking in that direction, and that is one reason why, frankly, we are groping around to find the possible difficulties of service at cost, and the shortcomings of it, and to possibly find whether or not there is any practical way to improve on any of the things that have been done. That is really the present study that we are making.

Commissioner GADSDEN. Going back to your incentive, how does your suggestion differ in principle from the provision in the Cincinnati ordinance?

Mr. ROBINSON. It does not differ at all in the principles that underlie the Cincinnati arrangement, but I like it a little better, personally. I think it works out more practically. And then if you analyze the Cincinnati arrangement through, you get into a tangle of arrangements which, to my mind, causes a great deal of confusion—and I can not quite see my way through with it. As I understand the Cincinnati arrangement, with their barometer fund they have a certain minimum and maximum. It is difficult to see how you are going to apply the principles of the barometer fund and still make a distribution of the excess earnings, because your excess earnings are cut off immediately by the barometer fund under certain conditions, and automatically you readjust the fare. And this other plan simply provides that the fares can go on down, down, and down, and so forth, without disturbing this barometer arrangement at all. The only effect is that you put under the barometer arrangement, so to speak, the increased amount of return without disturbing the barometer situation, whereas they do under their plan.

Commissioner GADSDEN. Have you considered any of the suggestions made by some witnesses before the commission, as to a stimulus to incentive, giving a reward to the officers and employees, on the theory that the capital invested did not need a stimulus; the stockholders were not the ones to take an active part in working out economies, but the economies if worked out at all were put into effect by the officers and employees of the company? One witness suggested that the rate of return, whatever it is, 6 per cent, or whatever is necessary to attract money, be allowed, and then hold out an incentive to the people who actually bring about the economy. Have you ever thought of that?

Mr. ROBINSON. Yes, sir, to some extent; and I personally have rather been inclined to put the emphasis on the management in the way of return than I have upon capital. I think in the past we have entirely failed to differentiate between the success of management and the success of capital. I think we have constantly put the emphasis upon the idea that if we kept on increasing the return to capital, we will get these things we are looking for, which I do not think will follow at all.

Commissioner MEEKER. Why do you advocate, then, an increase of return upon capital investment with a decrease in fare?

Mr. ROBINSON. Simply for the reason that I want the effect of making it worth their while to do the thing I am asking for. I will give you what I consider a rather concrete illustration of just where that situation arose. Some time ago a question came up of building a very large new electric central power station for Pittsburgh, and one of the questions that arose was this—and I cite it merely by way of illustration: We can build a plant to-day for \$8,000,000 that will produce a kilowatt-hour energy for a certain amount of consumption. For \$10,000,000, or \$2,000,000 more, we can put in certain economies which will result in cutting that cost down, we will say 10, 15, or 20 per cent, whatever it was. Now, I say capital would not expend that extra \$2,000,000 to produce that economy, unless they had some reward for it, against the \$8,000,000, because under the commission regulations they get 7 or 8 per cent, or whatever it might be, on the \$8,000,000, and would have no special incentive to put the other money in unless they got some benefit from it.

Now, I believe under those conditions that capital would be inclined to do the thing that would be best for the interest of the whole community by effecting these economies if they received some additional reward for it. That is one reason I have in that line. I do not mean to say that the expenditure of capital is not a factor in the question of the economies of the situation, because I believe that it is; but what I meant to say was that I thought that a very much exaggerated sense of the importance it plays in the problem in the past had been given, and that management had not been given its due share of reward and consideration. As a matter of fact, the very thought that has been suggested here was one of the things that led us to the conclusion that an arrangement by which the city owned the property, made a contract under a competitive system with outside management was one of the very things that induced us to believe that it was the management that should be rewarded, because our thought was that they would not put in the capital under those conditions and that we would furnish the equipment and everything,

and the management, by bidding for it, would be able to produce the full benefits of good management divorced from this rather complicated question of capital.

Commissioner MEEKER. You have just said that that part of management which has to do with dealing with labor would better be left with the director or the street-railway company official. After you take the labor management out of the field of private management, what is there left for the private managers to achieve in the way of economies and greater efficiency and service?

Mr. ROBINSON. Are you speaking only now of the bare question of the wage of labor?

Commissioner MEEKER. I specifically asked you if you thought that the problems regarding labor should be dealt with by the director of street railways—wages, hours, and conditions of labor, and your answer was, as I understood it, yes.

Mr. ROBINSON. I said I had not thought that question through finally, but my impression was that it would be better if he did have a voice in the matter. Under the cost-of-service plan—

Commissioner MEEKER. Just what do you mean by voice in the matter?

Mr. ROBINSON. I mean by that he should be really the one to determine the question.

Commissioner MEEKER. Well, then, that would take any economies, so far as the good will of the workers is concerned, out of the field of private management. It would be the function of the director of the street railways, would it not, to effect economies possible to be achieved in the field of labor? Now, what is there left for the management?

Mr. ROBINSON. Of course, you understand that the cost of labor would go in and be part of the budget arrangement, and of course there is no doubt that a plan such as we are suggesting here which attempted to reward management would be contrary, in the sense of principle, to the suggestion that you are making now, because you could not very well put the man in a position where you said, "I will reward you for your good management," and then say, "I will control the important factors of what your management is going to cost." You can not think consistently along those lines. I understand that. But as I said before, I was really thinking more particularly of what I regarded personally as probably the best solution of the situation, which, as the mayor stated, was Government or municipal ownership coupled with the competitive system of private management.

Now, there are unquestionably many other factors that enter into the question of good management because of the question of the rate of wages which still would remain in the problem. While I appreciate that that is a tremendous element in the question of your ability to reduce fares, the question of your routing of cars and of the respective number of platform men, with respect to the number of passengers carried per car, and all these other factors that enter into those things—

Commissioner WEHLE. The question of purchasing equipment and—

Mr. ROBINSON. Everything that relates to the question.

Commissioner WEHLE. And all the engineering problems that have to do with the property are necessarily factors in the matter, too, are they not?

Mr. ROBINSON. No question at all that any street-railway company that I have personally given any thought to could eliminate some of its trackage, for instance, advantageously to itself and probably to the public in many cases.

Commissioner MEEKER. Just a moment, to return to the statement you made with regard to routing your cars, your time schedules, your run schedules, and the size and equipment of your cars, etc.: Do you regard those as independent of the labor force—the employees that run the cars and that have to conduct transportation according to the schedules of runs which are made?

Mr. ROBINSON. I was looking at them in the sense that they were not primarily concerned with the rate of wage, which was the question over which—

Commissioner MEEKER. Of course, labor is more than a rate of wage, and I should have specified all along in my inquiries not merely wages but hours and conditions of labor. It has to do with all that which secures or fails to secure the good will of the men in the company.

Mr. ROBINSON. That is to say—as I get the drift of your suggestion, it is that if you are trying to build up a scheme whereby you are going to reward management and then pass the entire control of all the things that effect economies over to a commissioner, you have got yourself into a contradictory position. That is the idea?

Commissioner MEEKER. That is not exactly it. It does seem to me, though—I do not wish to express a personal opinion, but it does seem to me—the labor question is a big question, especially in a business like the street-railway business.

Mr. ROBINSON. Unquestionably.

Commissioner MEEKER. Now, if you mean that the director of street railways should have charge of the labor problems in the business, then it seems to me you are handing over to the public administration the biggest chance you have to effect economies and to increase the efficiency of your service and have left only the minor problems to be dealt with by the private management.

Commissioner WEHLE. Dr. Meeker, I wonder whether the witness understands, when you say director of street railways, that you are talking about a public official?

Commissioner MEEKER. Yes.

Commissioner WEHLE. I am not sure that he does.

Mr. ROBINSON. I think I understood what he had in mind there. What I had in mind when I said yes in answer to that question was simply this. In a great crisis where a serious strike situation confronted the street-railway company and the wages being paid in that city was out of line with the wages being paid in some other community; that, in a sense, it ought to be up to the director to say whether or not in his judgment the community would rather pay some increased return to the company in order to meet this demand than to go through a long protracted period of strikes. Now, that is about where I would try to put the situation if I could. I would not put him in charge of labor in the ordinary situation at all; but I am just thinking of that phase of the situation when I made that

answer. I did not mean by that that he should attempt to fix wages in the ordinary sense of the word, but I meant that if it could be arranged that when that crisis happened and responsibility in a way could be cast upon him—because I believe, with the training and education and his knowledge of the subject which would be incident to his position, that he would probably be the best person in the city to answer that question for the city.

Commissioner MEEKER. Would you give the like authority in determining hours of labor?

Mr. ROBINSON. I have not been thinking of that aspect of it at all.

Commissioner MEEKER. And conditions of labor?

Mr. ROBINSON. I was not thinking of that in that relationship.

Commissioner WEHLE. Those are just different ways of reckoning costs anyway, are they not, Dr. Meeker?

Commissioner MEEKER. No.

Commissioner WEHLE. The cost of labor is, of course, more on a street railway if the employees all have shorter hours, I mean, as a prima facie proposition.

Mr. ROBINSON. Perhaps I can sum it up just in a few words—not to take up too much of your time—as to what my mind has revolved on in respect to this thing: I regard the cost-of-service scheme as a new suggestion, not completely or fully tried out, which has many good elements about it. It certainly has, based upon proper value, the indispensable quality of justness and fairness about it; and I therefore have suggested that the doorway should be left open, in my opinion, for a possible step thereafter in the way of municipal purchase or public ownership and private operation, if it should develop that the service-at-cost plan with all the suggestions and all the improvements which we may be able to think of or add to it—if it is demonstrated that it has not turned out to be the success we hope it will be.

The CHAIRMAN. Have you made a trip to Cincinnati and Cleveland?

Mr. ROBINSON. Yes.

The CHAIRMAN. Have you talked with the managers as well as the public?

Mr. ROBINSON. I have usually talked to both sides, if I could.

The CHAIRMAN. How was this system regarded in Cincinnati?

Mr. ROBINSON. I am really in not such a good position to talk about it there as I am in Cleveland. I talked to Mr. Stanley who was before the commission, I believe.

The CHAIRMAN. Yes.

Mr. ROBINSON. And I think he thought very well of it. He complained about the one element that has been mentioned here—that there was no reward.

Commissioner WEHLE. Is this Cleveland or Cincinnati that you are talking about now?

Mr. ROBINSON. I am talking about Cleveland. I have not talked with the operating officials at Cincinnati. I tried to see some of them, but I did not succeed.

Commissioner WEHLE. At Cincinnati, what impression did you get about the way the plan was regarded by the city, by the public?

Mr. ROBINSON. I always had the impression that I got from certain sources—I do not recall definitely where they were—that per-

haps the mistake made in Cincinnati was that they did not have a valuation before they put the arrangement on; and while there was a feeling in some quarters that perhaps the valuation was high, the reasons I always heard assigned for that were that Cincinnati was largely a home investment, made up very largely of people of moderate means, or not great wealth, that had invested in the local traction company; and that, for that reason, there was a feeling that they had better allow the value to stand. That situation does not apply so much in other cities perhaps.

Commissioner MAHON. Did you find this there: That there had been a State valuation some time before and that they based this upon that?

Mr. ROBINSON. As I understood, that was a valuation, you might say, stopped in the process; that it had never gone through to a final finish. It was a case where valuations had progressed up to a certain point, and the parties sort of accepted it.

Commissioner MAHON. The valuation was made, but it was declared unconstitutional, and a new charter had to be secured. That did not change the valuation, however, did it?

Mr. ROBINSON. No; I am only stating impressions that I got from Mr. Culkins. He left me with the impression that those investigations had not been regarded, in his judgment at least, as final, and that they might have been contested. That was the impression that I had.

The CHAIRMAN. Have you anything further to add on the cost-of-service plan?

Commissioner WEHLE. I should like to ask Mr. Robinson a question.

The CHAIRMAN. Certainly.

Mr. ROBINSON. I do not recall anything.

Commissioner WEHLE. With reference to the cost-of-service plan at Cincinnati, what impressions did you get as to the merits of the barometer plan, as you call it, on this particular feature: That if the amount of money in the reserve fund drops to \$250,000, the company's right to charge a half cent more of fare to the car rider automatically comes into existence? Does that strike you as being a practical arrangement for the effecting of economies?

Mr. ROBINSON. Well, as I understand the cost-of-service plan, the barometer feature is indispensable—that is, you can not rely upon some one else's judgment. It is a question of mathematics. I think that in that respect the Cincinnati plan is not open to any special criticism.

Whether or not the reserves ought to be larger and the margins greater in that respect, of course, are practical details of the plan.

There are two objections that I have, primarily, to the Cincinnati plan. One is that, as I said before, it attempts to fit the fare situation onto the existing arrangements, without leaving the door open for serious economic and financial disturbances which may altogether alter what the parties had in their mind when they made the arrangement.

The second is that the Cincinnati plan does what most plans in the past have done—it locks the whole arrangement into a flat-fare

arrangement absolutely, and that, I think, is unwise. I think provision should be made for such adjustment of the fare as experience and practice may develop to be the best for the community and the best for the company.

Commissioner WEHLE. Is there not a tendency when you have a figure which when reached will entitle the company automatically to raise its fare by half a cent—is there not a tendency then for the company to allow the costs to go up to a point which will reduce their reserve fund to that point?

Mr. ROBINSON. The way the Cincinnati plan stands in that respect—I can see what you have reference to—does throw it open to that objection and, to my mind, is an additional argument for my suggestion as compared with the Cincinnati arrangement; that is to say, under the Cincinnati arrangement, they have a provision by which the excess over a certain amount is distributed on the basis of—20 per cent, I think it is—when it is down to 6 cents, and an increased amount so on down the line. The confusion in the situation, to my mind, arises from the fact that this arrangement, of course, only takes effect while the fund is moving between those two markers, so to speak. It is one of those cases where you have two principles, as has been suggested before, which more or less run counter to each other; because that fund automatically cuts the whole arrangement of fares, and makes another fare come into operation, and upon that fare coming into operation, of course, the amount of return is changed, as to whether the company gets 20 per cent or 30 per cent, or whatever it may be.

I have never, in my mind, been clearly able to set down on paper and work out the whole effect of the movement of this fund under the Cincinnati plan, and also incorporate into it what they regard as their special feature which they say they copied from Chicago, and this distribution of the excess. It is hard to get those two principles working together.

If you had a certain definite situation in which, over and above all those things, you paid them a certain amount of excess profit, it would be all right; but under this plan, the moment the profits get to a certain point, so that the reserve reaches a certain amount, automatically the whole arrangement is changed.

Commissioner GADSDEN. I imagine it is largely illusory, anyhow.

Mr. ROBINSON. I think it is under the Cincinnati plan largely illusory.

Commissioner GADSDEN. It does not rest until the fare goes down?

Mr. ROBINSON. And the moment it gets there you have to change it.

Commissioner GADSDEN. But it listens well?

Mr. ROBINSON. That is it exactly. That is what I think about the Cincinnati plan. I think, if you analyze it, that it is very largely illusory and does not produce what you started out to do.

Commissioner WEHLE. In order to bring about an incentive to efficiency, you would substitute a plan whereby there is a standard relation between a certain return on the capital and a certain rate, and then when the rate goes down, half a cent, say, you would then allow the return on the capital to go up one-fifth of 1 per cent?

Mr. ROBINSON. Something like that.

Commissioner WEHLE. And vice versa, if the rate has to go up——

Mr. ROBINSON. No; I would not change the return, because I would assume that that was a fair return on which money could be attracted; and it must be up to a point sufficient to attract the money.

Commissioner WEHLE. You would not have the principle work in the opposite direction?

Mr. ROBINSON. Not at all.

Commissioner WEHLE. You would only have it work up in order to bring an incentive to economy?

Mr. ROBINSON. That is all; and you would have to make those amounts dependent on what you thought were reasonable margins of operation and what you thought might reasonably accomplish the thing you were trying to do.

Commissioner WEHLE. You would not have that added requirement dependent on a reserve fund dropping down, because that is an incentive really to inefficiency, rather than to efficiency?

Mr. ROBINSON. As I say, I do not think the Cincinnati arrangements go hand and hand with that idea, although they have tried to work it out. I never could see it.

Commissioner WEHLE. Because, if you had the reserve fund at the figure of, say, \$350,000, it might induce the company under given conditions, to deliberately, as a matter of theory, add so much to its operating expenses, as to cause that fund to drop down to \$250,000, in order that they might get the right to raise the fare up another half cent, and get a new deal, as it were?

Mr. ROBINSON. All those things, of course, might work out if you were close to your margin. There is no question about that.

Commissioner WEHLE. But by your plan you would get the same ideal result that is aimed at in the Cincinnati plan, without getting that dangerous feature as an incident to it; isn't that true?

Mr. ROBINSON. I think I do. Also, as I say, I think I give them a real reward instead of an illusory one.

The CHAIRMAN. Will you have the record show how long you have represented the city as solicitor?

Mr. ROBINSON. I represented the city of Pittsburgh in the capacity of first assistant city solicitor for about five years, and for the last two and a half years have been in the capacity of special counsel for the city in the matter of public utility litigation.

The CHAIRMAN. For how many years have you been making a study of the street-car problem.

Mr. ROBINSON. I should say, in all, about seven years, and intensively for about two years.

Commissioner WEHLE. What were you going to say about the Cleveland plan?

Mr. ROBINSON. All I said was that I understood from Mr. Stanley that he was friendly to it, and that he thought that it was as sound as anything that had been devised in this country. He did not like the feature that I have referred to—that no reward was offered for efficiency. As you know, lately he has objected that the rate of return was not sufficient to attract new capital, and not fair to the old capital, too.

The CHAIRMAN. Have you made a study of the advisability of assessing improvements for new construction?

Mr. ROBINSON. I have given considerable thought to that and, personally, I am very heartily in favor of it. I do not think anyone can assail the theory of it.

The difficulty with it has always broken down either from constitutional objections in this country or from the practical difficulties. Those things, of course, could be overcome by legislation which met the constitutional requirements in the matter of special assessments and taxation, and by working out some plan which would practically determine the increments of value which came from these developments.

Of course, in the past there was often a community of interest between the lot-development schemes and the street-railway company, and it frequently happened that street-railway companies were carried at very considerable losses in the early periods in these outlying sections in order to develop them.

Our American city conditions, and the necessity of developing the city, was an incident of the situation, and I suppose people were satisfied that that arrangement should continue.

The CHAIRMAN. In the case of existing plants, would you permit a company to make extensions at its own cost?

Mr. ROBINSON. Personally, I should very much favor that all extensions should carry with them the same principle of assessments that we have in Pennsylvania, that goes with our street improvements, only I would extend the scope of it.

In that connection, I may say that in the study I made of the problem, I prepared for the city of Pittsburgh and submitted to the last legislature a draft of certain amendments to the constitution, which not only provide for a metropolitan district in Allegheny County to handle the transportation problem primarily but also to be applied to other problems, such as water and storage; and in that connection I incorporated in the amendment the provision that the boards of viewers could determine the increments of value coming from the extensions of street railway or subway developments, and could assess the land either a part or all of the amount of these increments of value.

The CHAIRMAN. Did you prepare an argument in support of that bill?

Mr. ROBINSON. I did not prepare any formal arguments. I simply presented it to certain senators and representatives and had it introduced in the legislature. I do not think it passed, as a matter of fact, because there was a great deal of local opposition among the 57 boroughs against the idea of a metropolitan district, and they thought that its design was to destroy their separate local governments, which was not the purpose at all.

It also suffered in another direction, which is not a part of this record, and that is, there was another metropolitan bill in at the time which was designed for an entirely different purpose, which was objected to in certain quarters, and they both received criticism, of course, one more or less getting the criticism of the other.

The CHAIRMAN. Will you furnish us with a copy of that bill, Mr. Robinson?

Mr. ROBINSON. Yes; I shall be glad to do it. It is a very short bill, as far this feature of it is concerned, and merely provides that

these viewers may assess, as I say, the increments of value which attached to it.

In this connection, I might suggest that two ways have been considered for making these assessments: One is by board of views preliminary to the actual building of the extension, which appeals to me as being rather unfair and as putting a burden upon these viewers which no one could answer, and that is what is the reasonably expected enhancement of value as a result of this improvement.

The other waits for a reasonable time after the improvement and, having made a very careful assessment of what they regard as the probable zone of influence, they make another assessment in the light of actual transactions, and in the light of the actual sales and the information which is then available, and determine from that what the effect of the influence of the development has been. And I understand in applying that they also go outside of the zone of influence, at points that are unquestionably too remote to be affected by it, and determine whether they also have received increments of value which they would attribute to natural community developments; and they subtract those from these other increments and if there is a difference or excess, they directly attach that as coming from the extension of the street railway, and from that they are able to determine what contribution should be made by the zone of influence.

The CHAIRMAN. So that in the last plan the company would supply the money in the first instance?

Mr. ROBINSON. The company would supply the money in the first instance, and it amortizes it by these assessments.

The CHAIRMAN. Yes.

Mr. ROBINSON. To that extent it becomes an amortized fund which is no longer a subject for return.

The CHAIRMAN. Is such a plan in effect anywhere?

Mr. ROBINSON. I have heard of such a plan being in effect in foreign countries. I could not testify personally as to that. I have understood that this latter plan was in effect in one or two foreign countries.

The CHAIRMAN. Do you know what countries?

Mr. ROBINSON. That is just a bare recollection. I think Denmark, for one, and Japan for another. I am not sure about that.

Commissioner WEHLE. Can you furnish a statement of that for the information of the commission?

Mr. ROBINSON. As to what?

Commissioner WEHLE. As to whether that plan has been adopted in any other countries for paying for public improvements on the assessment plan?

Mr. ROBINSON. I do recall, I think, that in New York State at one time they attempted to adopt this so-called zone-territorial matter that I referred to, more particularly, I think, in connection with street developments than in connection with this. I think it was declared unconstitutional, if I remember right.

The CHAIRMAN. It is a very common method in drainage assessments and things like that.

Mr. ROBINSON. I think they tried it in Denver once, but not particularly on this matter. I do not recall with what success.

Commissioner WEHLE. There is a provision in the public-service law of New York now under which assessments can be made for special benefits received by property holders, is there not?

Mr. ROBINSON. Well, most every State has what is known as special betterments acts, or special benefits acts, whereby street improvements are assessed very likely against abutting owners.

Commissioner WEHLE. But the provision I speak of in the public-service law of New York has reference not to ordinary street improvements but to railway improvements?

Mr. ROBINSON. I do not recall, personally.

Commissioner WEHLE. Transportation improvements.

Mr. ROBINSON. I do not recall.

The subject of the plan has been one that has been discussed a great deal by text writers. Personally, I think that is a source from which industries—all the industries affected, at least—a share of that increment of value could be applied to amortize the cost of street-railway extensions.

The CHAIRMAN. We thank you very much for your additional information, Mr. Robinson.

Mr. ROBINSON. You are certainly very welcome. I only wish that you could throw some light on my Pittsburgh problem, and I hope when your report comes out I will get some light on it.

Mr. WARREN. Did you give any consideration to Mr. Stanley's conclusion that the fixed return had proved insufficient to get new money, and that he ought to have a larger return? Have you considered that in connection with the cost-of-service plan—the question of new capital?

Mr. ROBINSON. My own idea about that, frankly, was this: My own idea is that you should fix a definite return of so many dollars to the existing capital, and that then the new capital, instead of being locked against a fixed return, should be given that return which is found to be necessary at various stages to get the money, under favorable conditions; that is, without paying discounts and so on. That is to say, I do not believe that, if I were trying a service-at-cost plan, I would follow the Cleveland plan in saying that all money would get 6 per cent and all new money shall get 6 per cent. I think the public should just as well have to pay for the reasonable cost of money as it would for the reasonable cost of the other factors involved in it.

Then, I suppose after I have said that, you will say: "Why don't you go back and take care of the old capital which, in a sense, has as much right to be treated fairly as the other?" And perhaps that would follow, too. I don't know. But, for the present, I should say the thing to do was to make a fair arrangement with existing capital and leave the door open to get new capital at whatever the market prices would fairly be.

Commissioner WEHLE. If your cost-of-service plan, as you have just been discussing it, gives an incentive to efficiency, by allowing the company to make a higher rate of return on its invested capital, does not that feature, in itself, act as an incentive to new investment of capital?

Mr. ROBINSON. It always makes the possibility of getting perhaps 1 per cent more than the arrangement provides for as a minimum.

L. always leaves that possibility open; and I suppose to that extent would make it more attractive than if the possibility were not there.

Commissioner GADSDEN. One of the objections, it seems to me, to differentiating between the old and the new capital—practical objections—

Mr. ROBINSON. I can see practical objections—

Commissioner GADSDEN. One that occurs to me is that the new money would necessarily have to be represented by junior securities. You would have to have the two classes of securities. You could not pay a different rate of interest on common stock, for instance, therefore the new money would have to come in as a junior security, the other one being already in existence.

Mr. ROBINSON. Well, on that theory, ordinarily junior securities do carry higher rates of return than senior securities.

Commissioner GADSDEN. It would be very difficult to finance it on a junior security?

Mr. ROBINSON. That might be.

Mr. WARREN. Suppose you gave a lump sum, instead of a rate. I understood you would give a certain amount of money as a return on the fixed capital?

Mr. ROBINSON. That was my thought, in present operation.

Mr. WARREN. If you needed more money, you would give a certain amount of money on that?

Mr. ROBINSON. Exactly.

Mr. WARREN. If you followed out the Massachusetts law and, I suppose, the law of many other States, you would capitalize through stock and offer the stock to the existing stockholders, and they would get the benefit of the increased return if they took their pro rata share?

Mr. ROBINSON. That would work out if you could keep within the same family of owners.

It was my thought, as I said, to make a definite, fixed sum to represent the annual return upon the existing investment and then to pay new money its fair cost at the time which you found it necessary to get it.

(Witness excused.)

STATEMENT OF W. JETT LAUCK—Resumed.

The CHAIRMAN. Mr. Lauck, we are to understand that the argument and brief presented by you this afternoon is the view of the Amalgamated Federation?

Mr. LAUCK. So far as it goes; yes.

The CHAIRMAN. All of the recommendations therein contained have been approved by the federation?

Mr. LAUCK. Yes.

The CHAIRMAN. You are acquainted with the reason for the appointment of this commission?

Mr. LAUCK. Yes, sir.

The CHAIRMAN. You have read the letters to the President and his letter in reply?

Mr. LAUCK. Yes, sir; I am familiar with the general idea.

The CHAIRMAN. Evidently we were appointed upon a belief of the President that there was a critical condition facing the street-railway industry, and we were asked to investigate and report upon that question.

Mr. LAUCK. Yes, sir.

The CHAIRMAN. You have also made a study of the question with a view to assisting this commission to make certain conclusions?

Mr. LAUCK. Yes, sir.

The CHAIRMAN. You have stressed very pointedly the financial mismanagement of these companies?

Mr. LAUCK. Yes.

The CHAIRMAN. What particular point do you desire to make by that part of your argument?

Mr. LAUCK. The point we had specifically in mind was, in the first place—or, rather, speaking generally—that the past financial mismanagement of these companies has a very vital significance at the present time, and that there must be some form of adjustment to get it on a proper basis in order to protect the interests of the employees as well as the public, and that your recommendation should cover the prevention of similar methods in the future on the ground that, as employees, we do not wish to see the productive efficiency of the industry absorbed by illegitimate capital issues.

The CHAIRMAN. Does your organization consider that the industry as a whole is facing a critical condition?

Mr. LAUCK. We have accepted, without question, the attitude of the companies that they are in a very critical condition, and need immediate relief as a whole.

The CHAIRMAN. I take it with that thought in mind, you have made certain constructive suggestions?

Mr. LAUCK. Yes.

The CHAIRMAN. Among those constructive suggestions is the introduction of the budget system?

Mr. LAUCK. We call that a living wage.

The CHAIRMAN. Would the introduction of a living wage tend to increase the present cost of production? When I say of "production," I mean production of service.

Mr. LAUCK. Yes. I think it would add very greatly to the cost of production, but our idea was this: That the public interests, especially in the light of the financial condition of the railways, is paramount, irrespective of that even, you might say.

If the railways are going to continue under private operation, as they have before, and with governmental regulation, they would need financial assistance from the public. If there is going to be some other means of rehabilitation—whatever the board or the commission in its wisdom may recommend—that it will need financial assistance from the public or the sanction of the public.

The CHAIRMAN. Do you believe that the imposition of a budget system would result in increasing the rates of these companies generally or requiring a subsidy by public appropriation?

Mr. LAUCK. It would depend entirely on how you recommend the street railways shall be operated.

The CHAIRMAN. We are assuming that the street-railway companies are being privately operated.

Mr. LAUCK. Well, if you assume that they will be privately operated in the future—

The CHAIRMAN. We are dealing with the present conditions, Mr. Lauck. Here is a situation confronting the industry.

Mr. LAUCK. Yes.

The CHAIRMAN. You and we are making a study of that situation.

Mr. LAUCK. Yes.

The CHAIRMAN. One of your recommendations is the budget system, and you say that will increase the operating cost?

Mr. LAUCK. Yes. Our attitude there would be this: That if we continue, the public would then have to decide as to the equitable capital investment on some basis in the industry, and give an equitable return to capital; and, second, that if our principle is correct as to a living wage, as a matter of public policy, irrespective of any increased cost in operation, our attitude would be that that would be a secondary matter of dollars and cents; but the principle being established, the public, having accepted this principle, would be perfectly willing, I think, to pay for it.

The CHAIRMAN. But in its ultimate result the budget system would, in your opinion, increase the burden to the public, either through higher rates or appropriation?

Mr. LAUCK. Undoubtedly; yes, sir.

The CHAIRMAN. Now then, if we were to recommend the budget system, which of the three which were discussed by Prof. Ogburn last night should be the one?

Mr. LAUCK. The last should be the minimum one, we think. If you recommend a specific budget, it should be the minimum standard health and comfort and not the subsistence budget.

The CHAIRMAN. Do you recall what that budget is?

Mr. LAUCK. We estimate that now, at present prices, at \$2,000 per annum, or about 80 cents per hour for street-railway employees.

The CHAIRMAN. Introducing that budget into the service would add how much money?

Mr. LAUCK. How much in the aggregate?

The CHAIRMAN. Yes.

Mr. LAUCK. I have not estimated that at all.

The CHAIRMAN. Could you do that?

Mr. LAUCK. We could do that; yes, sir.

The CHAIRMAN. Will you supply the record with that, please?

Mr. LAUCK. Yes.

Commissioner WEHLE. You could reduce that to the added cost per average passenger-mile?

Mr. LAUCK. That could be done; yes.

Commissioner WEHLE. What is the average cost in this country to-day—the average cost per mile per passenger of the platform service?

Mr. LAUCK. They express it as average cost per revenue passenger carried, irrespective of the distance.

Commissioner WEHLE. Yes.

Mr. LAUCK. Mr. Sturgis testified to that being 1.4 cents, I think. That is my recollection.

The CHAIRMAN. Then you will submit a calculation showing the approximate increase in the labor account and also—

Mr. LAUCK. Yes. I would like to say there also that, while I can see full well why you wish that information and it is vital, we would like to impress upon the commission that we are not looking upon the matter in terms of dollars and cents, but as a principle which we think should stand on its merit as a matter of principle and not as a matter of money.

The CHAIRMAN. I am not asking these questions as indicating that I am hostile to the principle, but for information.

Mr. LAUCK. Yes, I understand; but we think if the principle is correct it ought to be adopted irrespective of cost.

The CHAIRMAN. Now, if this budget of \$2,000 were adopted, would there be any possible way by which that could be reduced if the cost of living should be substantially reduced?

Mr. LAUCK. It would fluctuate with the cost of living; yes, sir.

The CHAIRMAN. So you believe that the budget should fluctuate with the cost of living?

Mr. LAUCK. If the cost of living is reduced, the cost of the budget would go down; yes, sir.

The CHAIRMAN. Do you believe that your organization would be perfectly willing to consider a reduction in the budget if the cost of living should go down?

Mr. LAUCK. Well, I have never consulted with the organization, but judging from what I know of organizations of this kind, it would have to be understood, if you recommended a specific budget, that it was flexible with the cost of living in the beginning, otherwise if the wage rate was established, I think it would be impossible to reduce it.

The CHAIRMAN. You have submitted a tabulation showing a comparison of wages between street-car employees and other lines of industry?

Mr. LAUCK. Yes.

The CHAIRMAN. Do you think that any particular significance can be drawn from a comparison between a regulated industry and industries that are not regulated?

Mr. LAUCK. Yes; I think it has no bearing whether it is regulated or unregulated. The street-railroad industry certainly has not been regulated as to wages, for the reason, so far as my observation goes, that they never have been contingent upon regulation.

The CHAIRMAN. I do not think they have as to wages, but they have as to charges. They have always been confronted with the amount of money they have been able to get for the service.

Mr. LAUCK. Yes; but I do not think that principle has ever been accepted by any court or by the boards: The principle that was established by the War Labor Board—that, irrespective of the financial conditions of the street railway, a rate of wages which was equitable should be paid, even if it put the railroad into the hands of receivers, which was practically the case on some railroads for which we established wages—was adopted, and the courts have also held, that even if a public utility is in the hands of the receiver, it has no bearing upon the matter of an equitable wage. That is why I wish to emphasize so much our principle that the financial effect is secondary. The principle is important.

The CHAIRMAN. Well, you have a comparison here between service in the street-car line and with the shipping industry and the steel works and other plants that have been manufacturing war supplies and materials—

Mr. LAUCK. Yes.

The CHAIRMAN. Under the stress of the most urgent necessity. The prices charged for that product were unlimited and could go as high as the ceiling, but that was not true as to many of the street-car companies.

Mr. LAUCK. No; that was not true, except that I think a pretty good case could be established in the way of the street-railway companies, that they received very considerable amounts of financial relief during the war. I know that the Shipping Board extended sums of money to the street railway industry in order to relieve the housing situation, and the Housing Corporation did the same thing and—

The CHAIRMAN (interposing). Do you know of any street-car company that got relief unless they had built new tracks into the shipyards or munition plants or war industries?

Mr. LAUCK. I do not know specifically enough to know; no.

The CHAIRMAN. I take it that is not so.

Commissioner MEEKER. Just for the record, Mr. Chairman, ought you not amend the statement that you made a moment ago, that the prices of the commodities produced by the companies or the manufacturing establishments you mentioned were unlimited? Because the Government did enter upon a price-regulation policy, and most essential articles for the prosecution of the war were subject to rigid price regulations. I think that should go in the record.

The CHAIRMAN. Was that so as to food products?

Commissioner MEEKER. Oh, yes.

The CHAIRMAN. As to steel products?

Commissioner MEEKER. Food products.

The CHAIRMAN. As to powder and shells?

Commissioner MEEKER. As to steel products; yes.

Mr. LAUCK. It was true as regards coal and certainly true as regards the steel products and food products and ammunition and ordnance.

Commissioner MEEKER. Complaint was made, to be sure, that the prices fixed by the Government—they were practically fixed—were fixed too high, and also complaints that they were too low, but they were fixed, and the prices charged were not unlimited.

The CHAIRMAN. Well, accepting the suggestion made by Dr. Meeker, I still submit that the comparison may be open to criticism.

Mr. LAUCK. I think that you could further say there in behalf of your own contention that where wage adjustments were made under these contracts due notice was made by the Procurement Department and compensating relief given to the manufacturing industry, but the same thing was attempted in the way of the street-railway industry, but did not succeed during the war. As I understand it, this is really a further development of the effort that was made during the war to give relief to the street-railway industries.

The CHAIRMAN. You have offered, on pages 82 to 90 of your brief, certain constructive suggestions?

Mr. LAUCK. Yes.

The CHAIRMAN. You also discussed certain of the fundamental questions that are being considered. On page 82 you state that there are two sorts of questions—those for immediate financial relief and those for a permanent policy. Now, under the first you have: (a) Flat increases in existing rates of fare; (b) the change to a zone system of fare charges; (c) freedom from taxation by municipalities and States; (d) the elimination of franchise requirements as to paving streets and other expenditures.

Has your organization taken action upon any of the four items mentioned under that head?

Mr. LAUCK. No; that part of the discussion is reserved for Mr. Mahon, who is acquainted with the policy and attitude of the organization, and I am simply speaking of the purely labor aspect.

The CHAIRMAN. Then you prefer to have him answer those questions?

Mr. LAUCK. Yes.

The CHAIRMAN. Take under the second group, changes in permanent policy advocated:

(a) Cost-of-service plans; (b) Municipal ownership and operation; (c) Municipal ownership but actual operation under the separate auspices of a publicly constituted body.

Do you care to discuss those questions?

Mr. LAUCK. No. Mr. Mahon represents the organization really as to its policies and he will answer that.

Commissioner MEEKER. May I ask a question there? Do you think that the service-at-cost plans that have come under your notice over-emphasize the importance of an automatic adjustment of fare and of the valuation of the properties concerned so as to distract attention from the questions of management and labor, which, in my opinion, are very much more important than these other questions?

Mr. LAUCK. Yes; I had gotten that distinct impression, especially with relation to the reflection of financial mismanagement upon operating efficiency, that there is a great deal for managerial ability in the street-railway industry and for securing the proper cooperation of labor on the proper development of industrial relations according to the principles that we are setting forth here. I think you could greatly increase the productivity of the industry by having living wages and proper hours and the acceptance of these principles which would lead over to the cooperation of labor with the management in the industry.

Commissioner MEEKER. And you estimated, or I understood that you estimated, yesterday, in some of your statements, that it would require an increase of 18 per cent in order to bring the wages of street-railway operatives up to the proper standard of health and comfort.

Mr. LAUCK. No; that was an increase of six—

Commissioner MEEKER. No matter what the per cent was, that does not matter; it would require a considerable increase?

Mr. LAUCK. Yes.

Commissioner MEEKER. To bring them up to that point. Suppose for the sake of specifiveness we say 12 per cent: Would that mean a proportionate increase in the cost of producing transportation on street railways? Do I make myself clear?

Mr. LAUCK. Assuming that the operating management would not absorb that by increased efficiency or by development of lower cost, it would require just a proportionate increase in the labor cost and not in the total cost.

Commissioner MEEKER. Would it increase the labor cost proportionately, in your judgment? You see the drift of my question?

Mr. LAUCK. Yes. If operating management conditions would remain as they are, it would.

Commissioner MEEKER. Don't you think that a well-fed, thoroughly healthy and contented man will operate a street-car more efficiently—

Mr. LAUCK. Oh, yes. I did not get your question. I think it would result in much greater cooperation and reduction in labor costs from the cooperation of the employees and the elimination of waste.

Commissioner MEEKER. What you mean, then, is that in the labor cost of operation it would not be a proportionate cost?

Mr. LAUCK. No. I think it would be a desire to serve the public and the company which would eliminate some of the costs now that occur under the more unfavorable conditions which employees have to work under, wages and hours.

Commissioner GADSDEN. I do not want to make too much of a point of that, but let us take a specific case now. Take the case of a conductor who is changed from budget 1 to budget 2. Can you suggest to the commission offhand how his usefulness to the company would be materially improved? He is presumably collecting all the fares on the car and ringing them all up. Now, what, substantially, other than an atmospheric—I admit that there is something in the atmospheric part of it—but leaving that out, how would his efficiency be improved?

Commissioner MEEKER. Pardon me but, Mr. Gadsden, are you not leaving out one very important gain that would follow a recognition of the principle that Mr. Lauck has advocated?

Commissioner GADSDEN. I am asking for information, because I do not know.

Mr. LAUCK. I think his attitude would be entirely different as you say, both to the operating company and to the public, and he would probably cooperate with the motorman in saving fuel, bringing about all the economies that the management would try to introduce as a means of offsetting these increased labor costs. I think that is true where you—I happen to know of two companies from my own observation. One of them recognizes the union and has the spirit of cooperation on the part of the employees to their treatment of the employees, and it is one of the best companies from the standpoint of the service to the public; it pays dividends and is very satisfactory from the standpoint of the public service. Another company operating in the same city which refuses to recognize the union has a far inferior class of employees; they are not at all courteous to the public; they do not seem to have a bit of regard for the proper operation of the railroad; the cars seem to run sort of helter-skelter or in groups and the employees are oblivious to the protests of passengers, and I think recently it became so great—the difference—that there have been even public protests against this one company. I do not like to mention the names of the companies, because I do not want to make invidious comparison.

Commissioner GADSDEN. You are running in on me some outside factors. There was only one variant in my question. All other conditions were the same and the variant was an increase from budget 1 to budget 2. The company was still organized and still unionized.

Mr. LAUCK. You had it organized and unionized at first?

Commissioner GADSDEN. Yes; it is all unionized and we are all a happy family.

Mr. LAUCK. Yes.

Commissioner GADSDEN. Now, we are able to increase from budget 1 to budget 2—

Commissioner MAHON. Do you mean in speaking of that increasing from No. 1 to No. 2 that you are establishing proper conditions of labor, the eight-hour day, and proper feeding and clothing of a man as compared with the conditions now?

Commissioner GADSDEN. Yes.

Commissioner MAHON. It is not necessary to go to the street-railway conditions or to speculate. There are proofs from every industry both in the United States and in England where they have adopted the eight-hour day that those conditions with the improvements of the men are there and the reports of our counselor some years ago from England of the adoption of the eight-hour day in the iron industry showed that they produced as much in the 8 hours as in the 10.

Commissioner GADSDEN. Yes; I agree to that, but I am asking—in an industry like ours now—I appreciate where a man is doing piece-work or is engaged in manufacturing work, his efficiency will almost directly respond, we will say, to an increase in his earning capacity and his living conditions. But I submit, while theoretically it is true, practically it is difficult to find out in an industry like ours the direct beneficial result.

Commissioner MEEKER. How about lost time?

The CHAIRMAN. The Chair would like to suggest that a discussion among the commissioners should be reserved for executive session. We are now conducting the hearing and ought to address the witness.

Mr. LAUCK. I think Mr. Gadsden is limiting the discussion very specifically there to the conductor. If we make it more general so as to include the motorman and all employees, I would unhesitatingly say yes, because the general effect would be the same as has been mentioned in other industries.

Commissioner MAHON. That is what he is interested in.

Commissioner MEEKER. How about lost time? Is there not economy in a man reporting every day or practically every day instead of being laid up by illness?

Mr. LAUCK. Undoubtedly, yes. It is hard to measure the effect, however, when it is confined specifically to one occupation, but as a whole I think the effect would, along with proper managerial ability, absorb the increased cost.

The CHAIRMAN. With this temporary interruption the Chair will attempt to continue his cross-examination.

Commissioner MAHON. Mr. Chairman, you made a mistake in asking a question of Mr. Lauck which I think possibly is subject to correction. That is, that no capital has been advanced to any company only those that built more track during the war.

The CHAIRMAN. It was my thought that the Government had only extended its capital aid to companies which had built lines to war industries or shipyards. If I am mistaken, I would like to be corrected.

Commissioner MAHON. Well, I do not know. I simply had my doubts. You may be correct, but I simply wanted to ask if that is what you had said.

The CHAIRMAN. That is what I had in mind.

Mr. LAUCK. There has been another variation in that in this way—that the Emergency Fleet Corporation has paid fares, or parts of fares, of industrial workers, probably—I know that is true around Philadelphia—to relieve the housing situation in certain sections and has paid a certain amount per capita to each man carried, in addition to the regular fare.

Commissioner WEHLE. Can I correct you a little bit more, if you will excuse me?

The CHAIRMAN. Yes.

Commissioner WEHLE. I think Mr. Commissioner Mahon is entitled to have the correction which he suggested. The War Finance Corporation, a branch really, in effect, of the Treasury Department, has loaned money to some public utilities during the war, in pursuance of its power to make advances to going concerns whose operations were necessary or contributory to the prosecution of the war; those advances were made not on account of, or in order to assist in, the construction of the shipyards or munition plants, but in order to assist those companies which received the benefit of those loans in maintaining their service in communities—maintaining the existing service in communities in which there were munition plants and other activities going on which were directly involved with the Government's war-production program.

The CHAIRMAN. Was that relief extended upon condition that the money would be repaid?

Commissioner WEHLE. Oh, yes; those were loans on very good security.

Commissioner MAHON. Will the chairman permit a question there?

The CHAIRMAN. Yes.

Commissioner MAHON. Was there not also money loaned at that time for fear of panic conditions, that kept certain companies going?

Commissioner WEHLE. That was no part of the statutory duty of the Government or of the War Finance Corporation to make loans for the purpose of stabilizing the money market or anything of that sort. The showing had to be made and had to be definitely established that the operations of the public-service company in question which was making this application for the loan were so essential to the successful prosecution of the war that a failure of the service or a crippling of the service of that company would seriously prejudice the Government's war-making functions and activities.

Commissioner MAHON. Was that the situation in Brooklyn?

Commissioner WEHLE. It was.

The CHAIRMAN. Mr. Lauck, your organization has united in making three specific recommendations.

Mr. LAUCK. Yes.

The CHAIRMAN. First, the right to organize, or union recognition; second, the establishment of a standard of living; and, third, the eight-hour workday. We have discussed the standard of living.

Mr. LAUCK. Yes.

The CHAIRMAN. Are there about 1,200 companies in the country?

Mr. LAUCK. That is what I have understood from the discussion here.

The CHAIRMAN. How many of those are organized?

Mr. LAUCK. I really do not know. I do not know how many companies are under the jurisdiction of the Amalgamated Association.

The CHAIRMAN. Do you know if many companies have what is known as company organizations?

Mr. LAUCK. The only one that has come under my personal observation has been Philadelphia.

The CHAIRMAN. Would you regard that as a company organization?

Mr. LAUCK. Yes; using the term in the way I assume you mean it, without any reflection on the company, it is a local system of collective bargaining.

The CHAIRMAN. Yes. Are there many companies that are not organized at all?

Mr. LAUCK. I really do not know. I have never looked into the question of the extent to which the industry is organized, but I suppose that could be furnished to the commission if you would like to have it. I do not know to what extent the industry is covered by the Amalgamated Association or other organizations.

The CHAIRMAN. Assuming for the purpose of this question that the evidence presented in favor of the Philadelphia plan shows that it has resulted in developing a fine spirit of cooperation between the men and the company and improved service and increased wages and also a return upon the capital investment; would you expect this commission to make a recommendation which would destroy that form of organization there?

Mr. LAUCK. I think that form of organization has no bearing upon the situation in Philadelphia, in the first place, beyond indicating that if you had a better form of organization and more of a spirit of cooperation which unionization would bring that you would have either better results than you would even under the local organization in Philadelphia.

The CHAIRMAN. But in some way you avoid a direct answer to my question. Just for the purpose of the question, I assumed those facts to exist. Now, if that be true, would you ask us to recommend that it be done away with?

Mr. LAUCK. Undoubtedly. I think that the Philadelphia form of organization from the standpoint of the employees can not result in permanent good to the employees unless through the enlightened policy of the company itself. I think it means, in fact, the same thing as the Standard Oil plan. If it is pursued under an enlightened paternalistic policy it may work for a time. But when there comes a time when the employees attempt to secure something from the company, I think the whole organization will go to pieces. I think it is not effective at all from the standpoint of the employees.

The CHAIRMAN. Then, your answer to my question is "yes"?

Mr. LAUCK. Yes.

The CHAIRMAN. On the theory that it does not create a permanent improvement?

Mr. LAUCK. I think it indicates that on the face of it—yes. It has no bargaining strength. That has been recognized by the British Government in its system of collective bargaining, which is based upon unionization.

The CHAIRMAN. You also recommend the eight-hour workday. Is the eight-hour workday quite generally observed in the industry?

Mr. LAUCK. I think the average workday is about 9½ hours. That is what I have learned from the testimony before the commission. I do not know from the results of any investigation or study.

The CHAIRMAN. Would the adoption of an eight-hour workday substantially increase the wage account of the industry as a whole?

Mr. LAUCK. Other things remaining the same, it would; yes. You would have to give a higher daily wage, a shorter period of work. Of course, we would contend there that that would be offset by increased productivity on the part of the employees, so that it would not be a proportionate increase in cost. Other things remaining the same, it would be, however.

The CHAIRMAN. Do you think the increased productivity would in any way reduce the present operating costs to the companies?

Mr. LAUCK. It seems to me that the company, if it has proper managerial ability in the way of developing efficiency in operation—that its success is dependent largely upon the density of traffic which it can develop and the handling of that traffic by the most economical equipment.

The CHAIRMAN. Have you in mind the admission you made early in your cross-examination that the industry is facing a critical condition? How will the adoption of these three recommendations of yours relieve that situation?

Mr. LAUCK. Financially?

The CHAIRMAN. Yes.

Mr. LAUCK. As I understand the question, assuming the assumption which I made, that the condition exists—we have accepted the contention that the industry is facing financial disaster as a whole, unless some aid is extended—

The CHAIRMAN. Yes.

Mr. LAUCK. Your question is, to what extent will these three principles aid in rehabilitating the companies?

The CHAIRMAN. Yes.

Mr. LAUCK. Unless accompanied with other measures of aid, they would be of but minor assistance, if any assistance at all.

The CHAIRMAN. What would be the other measures of aid?

Mr. LAUCK. As stated in the beginning of the constructive recommendations, it seems to me that there must be a reorganization both in the attitude of the public to the industry and in the public to the employees and the industry.

I am assuming, in making these recommendations, as regards the living wage and the eight-hour day and the union recognition—I am assuming recommendations for the financial rehabilitation of the industries, but wish these included as essential parts of your finan-

cial recommendations, and proper provision made financially for putting these into effect.

I am assuming that you are going to make recommendation on some basis to put the industry in a sound position financially.

The CHAIRMAN. Would one or all of these recommendations of yours be of any assistance to the company pending the permanent solution of the question?

Mr. LAUCK. I think they would all have a good effect in developing the cooperation between the employees and the management in securing better operating results, but, of course, would be met, unless the company had the proper financial assistance in the way of getting equipment and proper facilities and carrying on a long-time financial policy—they might add further to the burdens of the company immediately. But I am assuming that you are going to financially rehabilitate the companies, and then along with that we wish to insist that you include these principles.

The CHAIRMAN. Are your recommendations contingent upon the financial rehabilitation of the companies?

Mr. LAUCK. Undoubtedly; yes, sir. That is, if they need rehabilitation, which we assume from their testimony that they do.

The CHAIRMAN. Yes. I have no further cross-examination.

Commissioner SWEET. Have you any objection, Mr. Lauck, to the Philadelphia plan, except what you have mentioned? I mean with regard to labor, what you call the local system of organization?

Mr. LAUCK. Yes. I think, as I say, it is fundamentally unsound, from both the employees' standpoint and the public's standpoint; because at any real test the employees, through that plan, will not be able to protect their own interests.

Commissioner SWEET. The difference between the two, if I understand you aright, is that in case of trouble at Philadelphia under that plan the employees could not get outside aid they would have to depend upon themselves?

Mr. LAUCK. Yes.

Commissioner SWEET. And they would be more likely to be defeated in a strike or in any contention?

Mr. LAUCK. I think so, yes.

Commissioner SWEET. You used the word "paternalistic"?

Mr. LAUCK. Yes.

Commissioner SWEET. Do you use that in an offensive sense? Do you think there is anything wrong in the attitude of the company toward the men in Philadelphia?

Mr. LAUCK. Not in an offensive sense, except that I think any idea of paternalism in industry is offensive to the spirit of self reliance which is a fundamental characteristic of an American—that he does not want paternalism. He wants a proper opportunity and means for working out his own interests in a fair and just way. He does not want anything given to him, or any paternalistic care.

Commissioner SWEET. Do you understand, in the Philadelphia Rapid Transit Co., that that condition exists—that more is given to the men than should be given to them?

Mr. LAUCK. Not at all. I use that in the sense that I think—to be perfectly frank about the matter, so that there will be no misunderstanding—I think the Philadelphia plan is an outgrowth of peculiar

conditions in Philadelphia, of course; but looking at it in its broader aspects, it is perfectly evident to a considerable portion of the employers, both in the street-railway industry and in other industries, that the tendency toward collective bargaining is almost inevitable, and that certain employers have deceived themselves, I think, like in the Philadelphia plan, by attempting to evade unionism by these systems of collective bargaining like the Philadelphia plan, the Standard Oil plan, the Bethlehem Steel Co. plan, the Procter & Gamble arrangement; in other words, this system of collective bargaining has gotten to be almost the vogue in industry, on the part of the employer who does not want to deal with the union, and is attempting, to use a slang phrase, to "beat the union to it," and get his system of collective bargaining established and evade unionism in that way; because he thinks he can not get as good results from unionism as he can from a system of this kind. So he has an outward appearance of dealing with his employees without recognizing the union.

Anyone that looks into the question knows that the employees, under a situation of that kind—for instance, take the experience during the war: We established these systems of collective bargaining; our principles did not provide for the establishment of unionism; and when we withdrew our examiners, where the spirit that I speak of was not present, the whole thing collapsed like a deck of cards.

Commissioner WEHLE. When you say "we" you mean the National War Labor Board?

Mr. LAUCK. The War Labor Board.

Commissioner WEHLE. The National War Labor Board?

Mr. LAUCK. Yes.

Commissioner SWEET. You have heard the testimony, have you? You are familiar, at any rate, with the Philadelphia plan and the way it is working?

Mr. LAUCK. Yes. I have heard a great deal about it.

Commissioner SWEET. You were not here to hear Mr. Joyce?

Mr. LAUCK. I did not hear his testimony; no.

Commissioner SWEET. One of the reasons assigned for the success of that company by Mr. Joyce was that the employees are working hand in hand with the company itself in building up business, going out after business—that a sort of salesmanship idea has been cultivated?

Mr. LAUCK. Yes.

Commissioner SWEET. And that there is a good feeling, a sort of fellowship between the employer and employee.

Are there any union members, any of the Amalgamated employees, who are members of that organization in the Philadelphia system, or is it entirely an ununionized organization?

Mr. LAUCK. I do not know specifically, but my impression is that the Amalgamated has not a local in Philadelphia. However, I read Mr. Mitten's statement to the commission about the happy family, the picnics, and all like that in Philadelphia, and I think it exemplifies the fact that they would be a happier family, and that there would be more cooperation if you had unionization instead of this plan. I think it would even develop a greater spirit of cooperation.

Commissioner SWEET. What unionized railroad company in the United States can you mention that is producing as good results, or where the men are doing any better than they are at Philadelphia?

Mr. LAUCK. I am not sufficiently acquainted with the street-railway situation to answer that, except in saying that I think the playing-up of the Philadelphia plan and the good operating results from Philadelphia, has been over-emphasized. I think that the situation in Philadelphia, judging from its war-time condition, has been due to the fact that there are so many people there that they get them in the cars, and I think it would have come about under any conditions, practically. I do not wish to detract from the managerial efficiency in Philadelphia, but I think there were ideal conditions there for the development of a low-cost system of operation. That is, you had heavy density on the cars and the presence of people to fill the cars, and if you had that in any other community, you would have had practically the same result.

Commissioner SWEET. The evidence that was presented to us, if I remember right, indicated a continuing good condition since the war.

Mr. LAUCK. Yes; you have practically the same conditions there since the war.

Commissioner SWEET. And the public apparently is being better and better served even since the war was over, and reductions are being made in regard to transfers and that sort of thing.

Now, I will repeat the question: What unionized railroad company is showing as good results as regards the Republic and as regards the employers and as regards the employees as the Philadelphia company?

Mr. LAUCK. I would have to repeat my answer that I am not sufficiently familiar with the industry to make a comparison. The only way I could answer that would be hypothetically, that permanently, assuming the conditions you have in Philadelphia, under your present system of local collective bargaining, as a permanent policy if you had a union there, you would get better results in the long run, if it is due to collective bargaining that he is getting the results; because I think inevitably it will not work out as well as it would if he had a union of his employees, connected with an international or a national organization.

Commissioner SWEET. Is not your entire theory based upon the idea that the companies are greedy, or seeking to impose upon the employees, are not really public spirited, not willing that the employees should have a living wage, and one of animosity and antagonism? And is not the fighting quality in the Amalgamated Association the one that you really stress as its strong point?

Mr. LAUCK. Not at all. I think there has been a clash of economic forces between the trade union and the employer, because of the fact that the employee has not—not only in the street railway industry, but practically in any industry in this country—had a proper participation in the output of the industry.

My idea was to eliminate that by taking these principles which have been adopted by the enlightened opinion of the world, as the proper principles for bringing about industrial peace, and if you adopt them you will eliminate that and secure cooperation. The

essential condition to any proper operation, to proper productivity, to proper solution of the labor problem, is the spirit of cooperation, which must be based upon justice and equity to both parties; and if you will accept the principles which the most enlightened opinion of industrial and commercial nations has sanctioned, I think you will eliminate the antagonism and secure cooperation.

Commissioner SWEET. If you had the proper cooperation and real spirit of fellowship and good will on both sides, and a desire to cooperate and make the industry what it ought to be for the public, then this ability to call upon other branches of the union for help in case of a strike would be absolutely superfluous, would it not? There would be no strikes, would there?

Mr. LAUCK. Well, there would not be any strikes if you could have the assurance that the employees would be protected without an organization. I think the assurance of protection of the interests of the employees and against strikes would be the existence of the organization.

Commissioner SWEET. That the very frame of mind, the attitude you are taking now, that a local organization such as that at Philadelphia that is getting along, apparently, very well from every standpoint—from the standpoint of the men, from the standpoint of the company, and from the standpoint of the public; that is the evidence—don't you think, that when you pronounce adversely to that kind of an organization and put it purely upon the ground that it has not the ability to fight that the Amalgamated organization has because of its various locals—don't you think that you are somewhat in the attitude of the various nations before the war—that you are all the while building up, taxing the people for a big army and a big navy and that sort of thing, with the idea of being ready to fight, and that that idea is so prominent in the mind, that it leads to fights unnecessarily?

Mr. LAUCK. I think my attitude is exactly the opposite: That I know from industrial experience that the principle there is unsound. That is my opinion.

Now, as to the attitude: We are now living in a condition, industrially, corresponding to the period preceding the League of Nations; that is, labor has to have its armor on, and capital has to have its armor on. There is splendid evidence of that everywhere.

The League of Nations was established to bring about peace on earth, politically speaking, if possible; and to minimize the danger of war they incorporated in the League of Nations, realizing that it was essential to stability of production, the prevention of industrial warfare and the dislocations of industry, principles which they thought would eliminate industrial warfare. My attitude is that if you accept those principles, you will be in the same position industrially as the nations of the earth are in politically, who have accepted the League of Nations.

Commissioner SWEET. If those principles were accepted, then the ability to call upon other locals to help in case of a strike would be entirely unnecessary, would it not?

Mr. LAUCK. Practically, if they were accepted.

Commissioner SWEET. Very well, then. Your argument against the Philadelphia organization or system would entirely fall to the ground, would it not?

Mr. LAUCK. I can not see that at all; no, sir.

Commissioner SWEET. The local organization, if it is working all right, and if there is that spirit of cooperation that the League of Nations and the idea of peace and the reduction of armaments and that sort of thing, the spirit of good will is coming into existence—then there is no need of these provisions for fights, and battles are to be discarded and laid aside?

Mr. LAUCK. The force of the League of Nations fundamentally does not depend on the existence of good will, but depends upon the mobilized strength of the nations constituting the League of Nations.

Commissioner SWEET. Let me ask you this question: If the Philadelphia management should continue as it is now, and has been in the recent past, do you see any reason why the operators, the employees of that company, need to have any help from outside?

Mr. LAUCK. I distinctly stated that it would only be successful under a policy of that kind.

Commissioner SWEET. Then answer this question: Why, in the rehabilitation of the street-railroad companies of the country, recognizing the fact that they must lay their cards on the table, let the people know exactly where they stand, squeeze out all the water, and only ask for a proper return upon actually invested capital—if that is all to be done and the companies themselves from this time on—no matter how badly they may have misbehaved heretofore—from this time on are going to behave as to the public and as to their employees and give a square deal all around, then, is there any need on the part of the men who work for these companies to be able to call in outside capital, so to speak, or help for strikes? Will there be any strikes?

Mr. LAUCK. If we have this condition that you describe, I do not see how a strike could be possible, because you assume that everything will be done properly by the company.

Commissioner SWEET. In that kind of a case, then, local organizations such as they have in the Philadelphia company would be just as good as the general organizations?

Mr. LAUCK. If you had the conditions, yes, sir; but I do not think you can assume that unless you lay down the conditions either by law or by stipulation on the part of the public to the company—that we can assume we will have those conditions. That is, the Philadelphia plan, if it is true that the Philadelphia management—which I think has adopted a policy of enlightenment, of anticipating trouble and establishing the going rates of wages and hours and securing cooperation of their employees—if that is established universally under some sort of a sanction, that is exactly what we are asking for under these principles and would render unnecessary any further action; but we are asking to be assured that that will be done in the rehabilitation of these properties as a matter of public policy.

Commissioner SWEET. I do not want you to misunderstand me. The questions I have asked you were not asked with any idea in my mind that the unions are wrong or that your organization is wrong. I have not that in mind. You have your organization and you have a perfect right to it. I believe in organization. I think that a great deal of good can be accomplished by it, and I think oftentimes without strikes; but I am directing my questions to you with this in mind:

You ask us here in our final report to say that there should be unions—to make that a part of our report. Now, in the face of such an example as we have there in Philadelphia, and in the face of what we hope—I think we do; I am expressing my own view, at least what I hope, and what I believe is going to be the future of the street-railroad industry—I could not consistently say that we would be justified in urging or recommending even that there should be a unionization of all labor on street railroads. I think we would be going altogether too far to do that.

Commissioner MAHON. You could not say that?

Commissioner SWEET. No.

Commissioner MAHON. I am glad to get that expression of opinion.

Commissioner SWEET. I think that in view of the fact that the best example, or one of the best examples of a prosperous street-railroad company in the whole United States, and one that Mr. Lauck himself does not find a parallel to in all the unionized centers or street-railroad companies—that for us to say that the very best, or one of the very best, systems presented to us is no good, and brush that aside and say that that company and all other companies ought to unionize—I don't think we would be justified in doing that.

Commissioner MAHON. I would like to ask, at this point, Mr. Chairman, this question: I was always of the opinion that commissions, like courts, heard all the evidence before they made up their decisions. That has always been my opinion. The commissioner has delivered himself here to-night—delivered his opinion upon a case of which he has not heard all the facts in evidence here. I want to ask if that is the procedure. I say I am pleased to know his expression.

I have been appointed upon this commission, I presume, because I represent not only the street-railway men, but the trade unions of this country; and if that is the position of the commissioner, before even evidence can be presented, I want to know it, in fairness to the vast army of men and women that I represent, so that I can express myself, not only to this commission, but to the public, and to those I represent.

Commissioner SWEET. What do you think you have been doing the last two days, if you have not been presenting evidence?

Commissioner MAHON. I say to you this, Commissioner: That the evidence on the Philadelphia case—it is not the time for me to present evidence or argument on that case—it is an organization that has reorganized since the war. It failed in its first attempt, its first lines of cooperation. The wages, as testified here, that are paid the men in Philadelphia are the wages established by the Amalgamated men in four cities of this country.

The CHAIRMAN. Mr. Mahon, you have addressed a question to me, and I will answer it.

The Chair assumes that Mr. Sweet expressed an opinion based upon the evidence thus far presented.

Proceed with the cross-examination.

Mr. LAUCK. I would like to take exception to what Mr. Sweet deduced—

Commissioner WEHLE. I would like to ask—

The CHAIRMAN. Just a minute. Commissioner Sweet has a right to cross-examine the witness until he has finished. Have you any further questions, Mr. Sweet?

Commissioner SWEET. Yes.

Commissioner MAHON. I want to know if he has the right to pre-judge the case.

The CHAIRMAN. Do you wish to ask any more questions, Mr. Sweet?

Commissioner SWEET. Yes; I do.

The CHAIRMAN. Proceed with your cross-examination.

Commissioner SWEET. I want to say this to the witness: In asking the questions that I have and expressing an opinion which perhaps, I ought not to have expressed—Mr. Mahon has not been here all the time—but there has been from time to time a little more freedom in this commission in the way of expression of views from the commission than there is in the ordinary court, and the questions that I asked with regard to the Philadelphia company and that plan and your comparison of that plan with others, were with a view of drawing out from yourself, as a representative of the organization coming before us with your constructive plan and asking us to make a recommendation in our report that there should be a general unionizing of all labor of this kind—I perhaps was somewhat injudicious in expressing my view upon that point somewhat prematurely; but the reason why I did was because it seemed to me that you were, in a sense, making an admission that you could not name a unionized company that was showing any better results than the Philadelphia company, and, therefore, I thought upon that basis that it might be almost self-evident.

However, if there is to be further evidence introduced, I admit that it is my proper duty to hold any opinion until that is introduced and everything is before us, so I withdraw any statement I made with regard to an expression of opinion, although I think I was careful to say that it was my personal opinion—was I not? Did I not express it that way? Didn't I say that it was just my personal view?

Mr. LAUCK. I think so.

There is one point, Mr. Sweet, that I think you drew a deduction from something that was said that I could not show as good an example for the Amalgamated as Philadelphia, and that that demonstrated the superiority of Philadelphia over the Amalgamated, when, as a matter of fact, I stated that I was not sufficiently acquainted with practical conditions to answer that, and was arguing from a theoretical standpoint for unionism and did not know of the concrete cases.

Commissioner SWEET. Is not this brief that is presented to us your brief?

Mr. LAUCK. Yes.

Commissioner SWEET. The request that we shall make that finding is your request?

Mr. LAUCK. It is the request of the Amalgamated Association; yes.

Commissioner SWEET. And you represent the Amalgamated Association in making that request?

Mr. LAUCK. Yes.

Commissioner SWEET. That is what I assumed.

Mr. LAUCK. But as to concrete local instances of cooperation between the employees and employers in this industry, I am not competent to speak, because I have not the first-hand knowledge of

specific cases where the union is cooperating or where a system of collective bargaining outside of the union is cooperating, and therefore I can not make any statement upon which you could base a deduction as to the superiority of the Philadelphia plan over a union plan.

Commissioner SWEET. I would like to ask you a question along this line: You do not question—you have not questioned the correctness of the statement made by the companies that their financial condition is very bad?

Mr. LAUCK. No, sir.

Commissioner SWEET. It is a matter of general information throughout the public, is it not—among the employees of these companies, and of your own knowledge, and generally, that they are unable, as a general proposition, now, to borrow any money—that the companies are unable to borrow any money?

Mr. LAUCK. Yes; I have heard that for the past year.

Commissioner SWEET. You do not think, yourself, that a prudent investor now would buy bonds or invest in the stock of these companies, do you?

Mr. LAUCK. Not as a general proposition.

Commissioner SWEET. Only here and there will you find one that is even doing fairly well. You know, as a matter of fact, that many of them are now in the hands of receivers?

Mr. LAUCK. Yes.

Commissioner SWEET. And others are likely to go into the hands of receivers, and that they are not meeting their obligations?

Mr. LAUCK. Yes.

Commissioner SWEET. I want to ask you whether you do not think that the rehabilitation of the companies is a matter of just as much importance to the general public and to the employees as it is to the people who are managing these companies—the companies themselves?

Mr. LAUCK. Yes. I have stated, I think, that the public interest is paramount, and the employees have even a more vital interest than the capitalists in the matter.

Commissioner SWEET. The employees are a part of the public, are they not?

Mr. LAUCK. Yes.

Commissioner SWEET. And they have the added relationship to the company of being employees of the companies; so that they and their families, if these railroads were discontinued, would suffer in common with the general public in not having the facilities of the railroads and, in addition to that, would be thrown out of a job; isn't that true?

Mr. LAUCK. I mentioned that when discussing the situation.

Commissioner SWEET. So that nobody could be any more interested in having this rehabilitation made, so as to keep the companies in operation, than the employees?

Mr. LAUCK. They are vitally concerned.

Commissioner SWEET. Vitally interested?

Mr. LAUCK. Yes.

Commissioner SWEET. Now, then, it is not your purpose in anything you have done or said here, or in the evidence you have in-

troduced, to obstruct in any sense or in any way in the slightest degree the rehabilitation of these companies, is it?

Mr. LAUCK. We want to facilitate that; yes, sir.

Commissioner SWEET. You do not lay any stress upon the past misdeeds of the companies as any reason why they ought not to be rehabilitated?

Mr. LAUCK. Not at all.

Commissioner SWEET. Upon a proper basis?

Mr. LAUCK. No, sir.

Commissioner SWEET. And if I understand you correctly, your idea is that there should be found a correct means of valuation. . . Is that right?

Mr. LAUCK. I have not expressed any opinion as to that—that there should be a correct means of determining the fair investment values in the property.

Commissioner SWEET. Well, there should be some figure fixed?

Mr. LAUCK. Yes.

Commissioner SWEET. Upon which a return should be paid?

Mr. LAUCK. Yes.

Commissioner SWEET. And after that is arrived at there ought to be a general agreement with the public that it is a proper, honorable, and correct basis, ought there not?

Mr. LAUCK. Yes.

Commissioner SWEET. You do not question for a minute that the success of whatever may be done depends very largely upon the acquiescence and good will of the general public, do you?

Mr. LAUCK. I think that that is the paramount consideration.

Commissioner SWEET. So that the valuation, whatever basis it is made on, should be one that the public considers just and fair?

Mr. LAUCK. Yes.

Commissioner SWEET. That would be the first step. Then the next step would be to make some sort of provision by which a reasonable return could be made upon that valuation with a view of getting whatever new capital may be necessary to rehabilitate these companies and put them on their feet and make any repairs or new construction or improvements necessary, and so forth. Is not that so?

Mr. LAUCK. Yes; always bearing in mind as an essential condition to that the adoption of this policy as to the employees which they contend is strengthened by public opinion.

Commissioner SWEET. Certainly. And then in addition to that your contention is that the employees of the various companies ought to receive a living and proper, fair wage, which in your judgment would be somewhere in the vicinity of \$8 a day?

Mr. LAUCK. \$6 a day.

Commissioner SWEET. \$6 a day?

Mr. LAUCK. I might say there, if I might interrupt a moment, that I specifically stated we were not asking this commission to recommend any definite wage, but we are interested in the principle—

Commissioner SWEET. I understand.

Mr. LAUCK. Yes; which would involve, of course—

Commissioner SWEET. But the figure you have given us is something like \$6 a day?

Mr. LAUCK. Yes, sir.

Commissioner SWEET. Just one question more. Let me ask you now in all fairness—and we are all of us trying to get at the same result, and there is no need of any friction here or ill feeling—do you think it would be wise for this commission to load its report with any recommendation which would so antagonize the general community or interfere in any way with the rehabilitation of these companies? Do you think it would be for the interest of labor or for the general public for us to do that?

Mr. LAUCK. Not antagonize the general public; no, sir.

Commissioner SWEET. Or that would lead to conditions or create feelings or sentiments that would prevent the rehabilitation of the companies or militate against their rehabilitation? Do you think it would be wise?

Mr. LAUCK. I think you would fail in your duty if you did that.

Commissioner SWEET. Yes.

Mr. LAUCK. But I think you will not—the inference from your question is that you will antagonize your recommendation by including a policy as to labor or recognition of principles which have been recognized officially by this Government and proclaimed by the President of the United States and embodied in the League of Nations. I think you will be only storing up trouble for the future. You will be derelict in your public duties if you do not include them. I think—

The CHAIRMAN. We will stand adjourned until 10 o'clock tomorrow morning.

(Whereupon, at 10 p. m., an adjournment was taken until Friday, October 3, 1919, at 10 a. m.)

WASHINGTON, D. C., *October 3, 1919—10 a. m.*

Present: Parties as before.

Met pursuant to adjournment.

The CHAIRMAN. Mr. Lauck, will you resume the stand, please?

STATEMENT OF MR. W. JETT LAUCK—Continued.

The CHAIRMAN. Last night, Mr. Lauck, we were considering the comfort budget of \$2,000 a year, which you advocate.

Mr. LAUCK. Yes, sir.

The CHAIRMAN. That, as I understand, is based upon a family of five?

Mr. LAUCK. Yes, sir.

The CHAIRMAN. Is it your thought that that budget should prescribe the minimum wage to be paid to all classes of labor, single as well as married?

Mr. LAUCK. Yes, sir. The idea there was, as Prof. Ogburn explained, I believe, that a man who was of maturity should have an opportunity to prepare or anticipate marriage and to be married at an early age, and also this budget in the early period of his married life would enable him to acquire the necessary household furnishings and meet the expenses incident to that; the general theory being that as the children got older he would have a heavier measure of

expense, and if he had a surplus in the beginning it would enable him to get across the more difficult period later on in his life.

The CHAIRMAN. And this would be based upon an eight-hour day?

Mr. LAUCK. Yes, sir.

The CHAIRMAN. On that basis what would the wage amount to per hour?

Mr. LAUCK. On an actual eight-hour day for which we are contending and a living wage according to present costs of living it would amount to approximately between 75 and 80 cents per hour.

The CHAIRMAN. Well, it is about 80 cents per hour?

Mr. LAUCK. Eighty cents per hour. It involves also the additional principle of one day's rest in seven, which is guaranteed 365 days a year instead of 325.

The CHAIRMAN. So that the average wage for all classes of employees, married or single, would be 80 cents an hour, or \$6.40 a day?

Mr. LAUCK. Yes, sir; on the basis of living costs.

The CHAIRMAN. Would you have the wage apply to organized as well as unorganized labor in the railroad service?

Mr. LAUCK. We are speaking in this case of motormen and conductors, but that ought to be the wage applicable to any man or woman of mature years; of course, a man primarily, but the conception of a living wage should apply to any class of employees who are mature and adult, you might say, in the employ of the company.

The CHAIRMAN. Should the same wage be paid to women as to men for the same class of work?

Mr. LAUCK. Yes; that is a supplemental principle which is generally acknowledged and has been during the war and has been embodied in the peace treaty also, of equal pay for women as for men.

The CHAIRMAN. What is the mature age that you speak of?

Mr. LAUCK. Well, the standards that have been applied have varied within a compass of three years, and in some decisions it has been placed at 18 years. The usual practice is to place it at 21 years, however.

The CHAIRMAN. If you established a wage at a minimum of 80 cents an hour for all classes of service will you thereafter observe the same relationship in the wage list as you now have?

Mr. LAUCK. I think between the different occupations varying according to skill or responsibility or educational qualifications or technical, whatever it may be, that the same differentials should be maintained.

The CHAIRMAN. What does that wage amount to per month?

Mr. LAUCK. I have not computed that. We have not gone into the costs so much because we were—it would be \$166.66 a month, roughly.

The CHAIRMAN. Does the record show at what age a man must be before he is considered mature and entitled to this wage?

Mr. LAUCK. I have heard no testimony to that effect, but the usual practice, so far as my knowledge goes, in determining who is an adult so far as the awards during the war, was usually 21 years.

The CHAIRMAN. What wages would be allowed minors?

Mr. LAUCK. Usually where the principle of a minimum rate has been established, like in the street-railway industry and some of the War Labor Board awards during the war, in connection with common labor, that was usually left—there are a great many below 21

who are not only below that age but there are certain persons in the employ of the company who are more or less superannuated and have given long years of faithful service and are probably disqualified in certain respects through age and infirmity, and that was left for mutual agreement between the organizations and the company to work out a scale which would be equitable to the company and to the employees.

The CHAIRMAN. What is the lowest class of labor in the railroad service?

Mr. LAUCK. Usually the term is applied to common labor, that is, the physical—

The CHAIRMAN. What does common labor get?

Mr. LAUCK. I do not know in general what it gets now. The rate established during the war would range from 40 to 42½ cents.

The CHAIRMAN. Then if common labor was getting 40 cents during the war it would be entitled to an increase of 100 per cent?

Mr. LAUCK. Yes, sir.

The CHAIRMAN. Did they have women that washed the cars and cleaned the cars?

Mr. LAUCK. I am not acquainted with the practical details of the industry, but I suppose they had car cleaners of that type. The steam railroads did, I know, during the war.

The CHAIRMAN. Where a common laborer gets 40 cents, what does the conductor get?

Mr. LAUCK. Well; there was not a sufficient differential established during the war in favor of the conductors or motormen.

The CHAIRMAN. You say not a sufficient one?

Mr. LAUCK. No, sir; due to this fact, that there was no exact determination of the living wage during the war, on the ground that the war, being an interregnum, it was considered better to provide for a subsistence wage and leave the question of a living wage to later consideration. But attempts were made to take care of the unskilled workman by giving him at least a subsistence wage or make a compromise on a subsistence wage. The result of that was that usually some minimum rate was established to cover all these classes of unskilled workmen and that usually ranged around 40 to 42 cents. In the meantime, however, through past effort or precedent in the industry, the motormen had certain levels established; they might have been 35 or 43 cents; and the usual award was to add a few cents on to those, say, 3, 4, or 5 cents; so proportionately he got a much less increase than his differential over the unskilled man, and his differential over the unskilled man was greatly lessened on that account.

The CHAIRMAN. I understand, but what differential is there in favor of the conductor where the common laborer gets 40 cents? What is a conductor's wage?

Mr. LAUCK. The testimony has shown here the conductor's average now, if I recall correctly—

The CHAIRMAN. I do not want the average wage. You say the National War Labor Board established a minimum of 40 cents an hour for common labor?

Mr. LAUCK. Yes.

The CHAIRMAN. When they fixed that wage of 40 cents an hour, what did that fix for the conductor?

Mr. LAUCK. It depended entirely on the locality. They accepted the scales that were already in effect. That is, there might have been some localities where there was a comparatively low scale for conductors and motormen, say 35 cents an hour, and larger cities where they would be 43 cents, and sometimes even larger. They accepted those scales as they stood and added a certain increase on the basis of those scales, but sometimes the award was made broadly inclusive; that is, I remember in the case of New Orleans they had a comparatively low rate for conductors and motormen and a lower rate for skilled labor, and the provision was inserted in the award that no rates should be less than 42 cents, which gave quite a large increase to all classes of employees.

The CHAIRMAN. Can you indicate approximately the difference in the wages of conductors and common labor, assuming the common labor is getting 40 cents an hour under your allowance?

Mr. LAUCK. You mean as a general rule?

The CHAIRMAN. Yes.

Mr. LAUCK. The average rate for conductors and motormen is shown, although that is disputed on the ground that there have been more recent increases. There is a conflict of opinion as to how extensive the increases have been, and I believe that data is to be submitted on that later.

The average rate, as submitted by Mr. Sturgis in his testimony, based upon the returns of the local Amalgamated Association, was 40.04 cents an hour for motormen and conductors, while the rate, as taken from the Bureau of Labor Statistics' study of union scales of pay, was 42½ cents an hour; so that you might say it ranges very little, if any, above the rate of common labor.

Commissioner MEEKER. May I ask a question there?

The CHAIRMAN. Certainly.

Commissioner MEEKER. Going back to New Orleans: Was the rate established for motormen and conductors in that award?

Mr. LAUCK. Yes.

Commissioner MEEKER. What was that rate?

Mr. LAUCK. I do not know whether I can definitely recall that or not. There was a comparatively low rate in New Orleans and, as I recall it, it was brought up to the minimum rate which was then established by the board; and I think it was established along about 43 cents. Probably Mr. Mahon recalls that, or Mr. Gadsden.

Commissioner GADSDEN. I think the basis of the award was on the basis of the second class of railways, commencing with 43 cents; and then, at a latter hearing all of the southern cities were reduced to 40 cents and New Orleans left at 43.

Mr. LAUCK. My recollection is that it was about 33 cents; but it represented a very considerable increase over the previous rate.

Commissioner GADSDEN. I think their rate was 28 cents.

Mr. LAUCK. Twenty-eight cents or something like that. That was largely on the basis of applying this minimum, not only to common labor but to every class of employees.

The CHAIRMAN. In your judgment, Mr. Lauck, should there be a difference between the wages of a conductor and the common laborer?

Mr. LAUCK. Just my general opinion is, undoubtedly so: yes. There should be a differential, because there is more responsibility.

The CHAIRMAN. What should that differential be?

Mr. LAUCK. I should think that should be determined by the practice and precedents in the industry. I would not care to express an opinion on that.

The CHAIRMAN. Should it be a considerable amount?

Mr. LAUCK. Not that I would hesitate, if I knew, to say, Mr. Chairman, but I could not say what the differential should be. I know there has been, in some localities, a considerable differential. I may be wrong about this, but in the larger cities I should think it was not as much as it should be; possibly not over 25 per cent. In some of the smaller cities it has ranged above that, I think, on account of the low prices probably of Negro labor in the South.

The CHAIRMAN. What is the highest-priced labor in the railroad service?

Mr. LAUCK. I don't know.

The CHAIRMAN. I was wondering if the shopmen or skilled mechanics got more money than the motormen?

Mr. LAUCK. I could answer that. Yes; they do get a great deal more. That was worked out during the war, due to the fact that their rates were generally standardized, and there was a great increase in their rates in a great many of the railroad shops, for the reason that otherwise they would have gone to the shipyards and munition factories.

The CHAIRMAN. If common labor is fixed at 80 cents an hour, do you believe the same relationship should exist between skilled labor and common labor?

Mr. LAUCK. I think it would inevitably come.

Mr. WARREN. You mean 40 cents, do you not, Mr. Chairman? You said 80 cents.

The CHAIRMAN. Under this standard scale which they propose common labor will be 80 cents an hour.

Mr. WARREN. Oh, yes; excuse me.

The CHAIRMAN. Then if common labor is increased 100 per cent under the proposition, would that mean that skilled labor would also be increased 100 per cent to preserve the relationship?

Mr. LAUCK. No. I think that in practical effect the motormen and conductors will be highly gratified to receive a living wage, and the tendency would be further to widen the differential as time went on; but I think that they would feel that their fundamental request for at least a living wage would be satisfying for a time at least, because their wages are now so inadequate on a comparative basis.

The CHAIRMAN. Then you believe that the stenographers and the clerks and all the employees in the street-railroad service of mature age should have at least \$166 a month for an eight-hour day?

Mr. LAUCK. I think that is a fundamental industrial right which they should have, and I think that the opinion of the world, the universally enlightened opinion of the world, would support that; that, growing out of the war, has come the conclusion on the part of a large part of the public, as well as on the part of the workers, that if we are going to have any measure of economic democracy at all, the fundamental, inalienable, you might say self-evident—to use a principle of the Declaration of Independence—right of the worker is to a living wage; and if an industry does not pay a living wage it is parasitic and should be eliminated; in other words, that industry

exists for the common good and not for the deterioration of the working classes.

The CHAIRMAN. If such a standard of wages should be adopted in the street-car service, would it naturally influence a similar plan in the steam-railroad world?

Mr. LAUCK. To anticipate the reply, I think it should be of universal application in all industry.

The CHAIRMAN. In all industries?

Mr. LAUCK. Yes.

The CHAIRMAN. Organized as well as unorganized?

Mr. LAUCK. Oh, yes.

The CHAIRMAN. And that would affect the school-teachers and the preachers and the farmers; labor on the farm and labor upon the streets; white, colored, yellow, and every form of labor?

Mr. LAUCK. Every form of labor, we are contending, has an inalienable right, just like the political right of free speech or political assembly, to a living wage in industry.

We do not accept the conclusion, however, that by the establishment of this wage you are going to proportionately raise prices. We will go along with this conclusion, as we have as regards the methods of corporation finance, that if you had an equitable distribution of the output of industry on a basis of—as I understand this commission is considering—considering industry from the standpoint of justice to the interests of capital, the public, and labor, that it will not necessarily increase to a commensurate extent the cost of production, the price of the service.

The CHAIRMAN. But if the Government should recommend this living standard, and it should be adopted in the street-railway service, it would naturally have the effect of working in to almost all other lines of work, would it not?

Mr. LAUCK. Oh, yes; it should, I think.

The CHAIRMAN. So that the natural result would be a very large increase in the wage account throughout the country?

Mr. LAUCK. Yes.

The CHAIRMAN. Would not that also have a very marked influence upon the increase in the cost of living?

Mr. LAUCK. No; I think that is a fallacious point of view, that by increasing wages you increase the cost of living. We were discussing yesterday that the proportion of labor costs to total costs does not justify a conclusion of that kind; that the selling price is due to the arbitrary determination of prices, you might say. That is, in the problem which is before the commission, if the public interest is to be paramount, if you are considering the problem from the public-interest standpoint, as you are in the street-railway industry, if the point has been conceded that there must be public assistance, and the public interest is paramount, then our contention would be that the earnings of this industry not being diverted, as is usually the case in industrial corporations, or not being subject to artificial fixation of prices, the earnings would be sufficient to grant a fair return to capital and a reasonable return, reimbursing them for the investment, and to pay these living wages to labor, without a commensurate increase in the cost of service, although probably there would be an increase at first in the cost.

The CHAIRMAN. What do you regard as a fairly typical street-car line in this country? Just name us one.

Mr. LAUCK. I hope you do not think, Mr. Chairman, that I am unwilling to say, but I really do not know. I am not acquainted with the technic of the industry.

The CHAIRMAN. Can you take the Cleveland company as fairly typical?

Mr. LAUCK. It would all be a matter of general impression with me.

The CHAIRMAN. Have you got in your possession, or can you get, the complete wage account of the Cleveland company?

Mr. LAUCK. That is, the rates of pay?

The CHAIRMAN. Yes.

Mr. LAUCK. I think so. That company has given us some information to use in connection with our exhibits.

The CHAIRMAN. Will you take the wage list of the Cleveland company and apply to that the present wages and the wages that would govern if the \$2,000 standard scale were adopted, showing the percentage of increase in each class of labor, observing the same relationship between the classes of labor which now exist? And file that so that we can make it a part of the record?

Mr. LAUCK. I understand it is a vital consideration—the money part of it; but we have not put in any testimony along those lines, because we think that if the principles are correct, and the public approves them, as we think they do, we think the public is perfectly willing to pay the cost, and anyhow we are standing on the merits of the principle, regardless of any cost.

The CHAIRMAN. You would not expect this commission to pass on that question, however, without knowing what the effect would be on the industry and the public?

Mr. LAUCK. I think the commission would want to know; but I think if the principles are right, that the question of right and justice supersedes any question of money.

The CHAIRMAN. When you work out that scale for Cleveland, will you, at the same time, show what the effect would be upon the rate per passenger and per car-mile, and show what, under the Cleveland plan, would have to be the rate of fare under the new adjustment?

Mr. LAUCK. That is, assuming the same methods of management and distribution of the revenue of the industry?

The CHAIRMAN. Yes.

Mr. LAUCK. And allowing for no improvement?

Commissioner MAHON. Haven't you shown that, practically where you show in your evidence what it would have cost to have brought the men up to the standard of wage that they should have had?

Mr. LAUCK. That is easily deducible from our evidence as to the cost per revenue passenger for motormen and conductors, which is 1.4 cents.

The CHAIRMAN. I think the commission would like to have the exact figures and a correct analysis made.

Commissioner WEHLE. Furthermore, Mr. Lauck, I think that what the chairman wishes to have is a computation based not only on such a wage or salary being paid to the platform men, but to all of the

mature workers in the employ of the industry, whether clerical or manual.

Mr. LAUCK. I understood that; he wanted the existing differentials reflected. I would like to say, however, that our point of view is we would be glad to furnish this, but we do not consider that financial considerations should militate against these principles. If they are right we think they ought to be adopted.

The CHAIRMAN. In your consideration of this subject has it occurred to you that the adoption of this standard scale might so greatly increase the carfare as to largely reduce the riding habit, and thus in the long run to accomplish a very great injury to men employed in the service?

Mr. LAUCK. I do not see how that could work out. I think that is not a sound conclusion, for the reason that we are assuming—

The CHAIRMAN. I have not suggested it as a conclusion, but I have asked for your opinion.

Mr. LAUCK. Yes. I did not mean that as a criticism, but I was just grabbing at the idea. Our idea is that the public interest is predominant and the public is going to protect fully and guarantee the rights of capital. We think that labor has certain fundamental rights, like capital has the right to a fair return, and labor has the right to a living wage. We think the public has accepted that principle, and we know it is the policy of some of the leading nations of the world already in a practical way. We believe whatever the cost of that may be to the public, whatever it might be, that the public is willing to pay for that. And if it would result in an excessive fare, the public might meet that in the way of car riding by remission of taxes or by granting of some form of financial relief or otherwise to the company.

The CHAIRMAN. Well, the evidence presented here seems to indicate that in all cases where fares are increased that competition from jitney service and other sources is stimulated. Now, if the fare through the adoption of your plan should be largely increased, would it not have a tendency to greatly increase the amount of automobiles used in jitney service?

Mr. LAUCK. I think so; but I do not think it would have any significance, for this reason, that the public supports hospitals and the patients do not pay for the cost of the maintenance of those hospitals, but the public has decided that the well-being of the community demands that certain institutions of this kind be maintained, hospitals and similar institutions. Their receipts are less than their expenditures and the public meets the deficit. The public—

The CHAIRMAN. Then you meet the situation by saying that a street-car fare should be one to encourage the riding habit and the public should pay the deficit out of taxation?

Mr. LAUCK. Well, my point of view is that the public will consider that; if it thinks it is better for the people to ride and they will not ride at a higher fare, that the public will take proper measures to give the financial assistance necessary to let them ride.

The CHAIRMAN. If you were going to fix this minimum wage at \$166 a month, might it not result in a very large percentage of the single men in your service, and also a great many married men in your service riding in flivvers instead of on the street-cars?

Mr. LAUCK. Well—

The CHAIRMAN. Would not that apply to all other classes of labor?

Mr. LAUCK. The rate of pay?

The CHAIRMAN. The rate of pay they are given—so much money that they would have to spend it for something, so they would buy automobiles and other things and thus not ride on a street-car?

Mr. LAUCK. Well, I do not think that would be a crime if they did anything of that kind.

The CHAIRMAN. But what becomes of the street-car and what becomes of the opportunity for your men to work in that service?

Mr. LAUCK. In other words, if I get your question, it is: If we increase the wages to such an extent for a living wage, that everybody will have so much money they will buy an automobile, and therefore there will not be any need for the street-railway industry. I think that is not a sound conclusion, because we have not provided in our budget for anything beyond minimum comfort, and they would not have the funds even to buy a Ford.

The CHAIRMAN. That is all, Mr. Lauck.

Commissioner MAHON. Mr. Lauck, you do not believe that labor should pay a sacrifice to keep street-cars going, do you?

Mr. LAUCK. No, sir. I think there is a great deal too much tendency—that is what I was attempting to bring out—to lay stress upon the sacred right of capital to a fair return. We do not dispute that, of course. That has been brought up to a condition of social usage, and so forth.

Commissioner MEEKER. It is part of the Constitution, too.

Mr. LAUCK. It is part of the Constitution, but we think now under this new development, under the war, that we are going to have industrial democracy in the right sense of the word; that there are certain rights of labor, and one of those is the right to a living wage irrespective of what the cost may be or what the effect may be, and we believe the public will afford it.

Commissioner MAHON. You do not believe that, if modern inventions come along and displace the street railway by something that is more convenient and beneficial to the public, labor should sacrifice in the way of a low wage to conserve low fares and keep this industry, do you?

Mr. LAUCK. Absolutely not; and I do not think the public would expect labor to do that.

Commissioner GADSDEN. Mr. Lauck, if I get your position correctly, it is that this standard of living that you have described is a standard which you think the public should work toward?

Mr. LAUCK. Yes, sir.

Mr. GADSDEN. Not necessarily that it is going to be adopted tomorrow or the next day or next month, but you think it ought to be kept in view and adjustments made from time to time in the hopes of reaching that standard at a proper time. Is that about your thought?

Mr. LAUCK. Well, I would not make it quite that indefinite. I should think it ought to be immediately, so far as realizable and put into effect. I have distinctly brought out the point of view, in speaking and in our brief, that we wish the commission to recommend or sanction this principle, and the definite amount would be

worked out between the organizations and the company or any adjustment agencies that would be created as the result of your recommendations or other agencies. We think that——

Commissioner GADSDEN. What I had in mind was this, that if the standards which you are advocating were put into effect immediately or in the near future they would anticipate, perhaps, by a great many years the adjustments of the relations between the companies and the public, because we can hardly suppose that the relations between the companies and the public can be worked out in a year or two years—in a long time. Now, if these readjustments of the labor standards are put into effect in advance of that, do you not think that you are going to precipitate a much greater crisis in the industry than you have to-day?

Mr. LAUCK. I think if you arbitrarily and immediately apply them it would lead to a great dislocation and the utter collapse, perhaps, of the industry.

Commissioner GADSDEN. And probably defeat its purpose, because some roads would have to go out of business and labor would lose its employment.

Mr. LAUCK. But the point is this: We have assumed that the commission would recommend a permanent policy to rehabilitate the street railways and to work out these relations with the public and, as a part of that policy, there should be the sanction of these principles, and as this was worked out these principles would be put into effect.

Commissioner GADSDEN. Well, that is what I asked you at first.

Mr. LAUCK. Yes.

Commissioner MAHON. Mr. Lauck, turning back to the Philadelphia plan as spoken of yesterday, do you believe that hanging a sign out on a car and saying, "Come, ride with me," is going to bring riders to the railroad service?

Mr. LAUCK. I certainly do not; no, sir. It depends a good deal on the car, and the service, and the desire for riding, and the need for riding.

Commissioner MAHON. Do you believe that the demands of labor will be met by giving us a picnic once or twice a year at Willow Grove?

Mr. LAUCK. No; I think those picnics are a palliative for the demands of labor.

Commissioner MAHON. You have made quite a study of the industrial conditions of the world. Do you not consider that the Philadelphia plan is merely what we call in the industrial world corporation "feudalism"?

Mr. LAUCK. Yes; I described it last night as paternalism. I think another good word would be "feudalism." It is the idea that the management in an enlightened way is doing good for the employees and thus bringing about the cooperation of the employees, and the employees are accepting what the management in its great wisdom may think is the proper thing for the employee.

Commissioner MAHON. And they are forced to accept that if they remain in that service?

Mr. LAUCK. Yes. If they should protest I think the whole system would go to pieces. It is like in the cotton mills in the South a good

deal, the welfare work and other institutions all over the country; the same principles apply.

Commissioner MAHON. You were describing the labor movement here in answer to some questions which were asked you. You stated that the formation of the local union—or left that impression—was merely a matter of having cooperation in the case of industrial trouble. I want to ask you if the correct view or the position and policy of labor is not that of internationalism rather than nationalism in the form of wage conditions?

Mr. LAUCK. Most all of our organizations, so far as I know, are organized on international lines; that is, so far as Canada and the United States are concerned, and affiliations with other organizations in other countries through federations.

Commissioner MAHON. The idea is that the trades shall in an international manner protect and advance their interests. Is not that the policy?

Mr. LAUCK. I think so. It is more and more developing in that connection and becoming stronger all the time.

Commissioner MAHON. And that the men engaged in any particular line of business as workmen feel that their interest and the interest of that occupation is one that they should generally promote and advance for the welfare not only of the employer but all the men and women engaged in that line of work?

Mr. LAUCK. To establish standards which will be labor standards, you might say, of work and compensation which will be of general application nationally and as the peace treaty puts it, internationally, due regard being had for the different habits of different people.

Commissioner MAHON. In your investigation of the international trade unions, what do you find in the way of developing these in the way of benefits, and so on? Do you find that it is more than merely that of assisting them in striking?

Mr. LAUCK. Oh, undoubtedly it extends not only to the range of compensation and labor standards but to all forms of activity looking to the protection of the individual and his health, happiness, and recreation and his educational opportunities and provision for old age and death and all forms of social amelioration, you might say; also political in a certain sense.

Commissioner MAHON. Do you happen to know what are some of the main demands of the American Federation of Labor in the way of legislation or education, and all those things?

Mr. LAUCK. So far as I know, they are advocating measures for vocational education, improving of the efficiency and skill of the workers—

Commissioner MAHON. For free schools?

Mr. LAUCK. For free schools, payment of increased salaries to teachers, and for a general increase of the appropriations for education which have been very inadequate in this country.

Commissioner MAHON. The men isolated in a local organization of any kind, can they do much or take much part in that general work for which labor is struggling?

Mr. LAUCK. No; their labor would be ineffective, just as all organizations to be effective, capital and social and all forms, must be organized on as wide a basis as possible in order to be as effective as possible. That is the underlying concept of the labor movement.

Commissioner MAHON. That is all.

Mr. LAUCK. They would be ineffective locally, I might say.

Commissioner WEHLE. One of the great aims that seem to lie before the economic world is the greater effectualization of management and of labor, is it not?

Mr. LAUCK. Yes.

Commissioner WEHLE. We have seen in connection with the Philadelphia plan, so called, that the management in Philadelphia has brought about a greater productiveness of the platform labor in the industry, or at least that is what has been suggested and maintained by Mr. Joyce, who appeared for the Philadelphia Rapid Transit Co. Is there at present, to your knowledge, any well-defined movement, or any movement at all, among the members or leaders among the Amalgamated Association of Street Railway Employees to bring about a greater efficiency and greater productiveness of the employees of the company who are unionized?

Mr. LAUCK. I do not think there is any actual concrete program on by the Amalgamated in that sense, and I do not think that there is any on in Philadelphia on the part of the employees, but I do think if you would adopt an enlightened policy of industrial statesmanship as applied to the street railways, where it was evident that the employees and capital as the result of their joint efforts for productiveness would have an equitable participation in the output of the industry, that it would accelerate that to a remarkable extent and you would have the closest cooperation in that way from both factors. We do not think, or I do not think, that unless you do adopt these principles, the industry is assuming it is going to be conducted for the common good; unless you apply that to labor and capital, and especially to labor, you can not expect any cooperation in producing, because you remove the element which would bring about cooperation.

Commissioner WEHLE. Among the employees of completely unionized traction companies have you discovered any movement among the union men themselves to undertake to bring about a greater effectualization of their efforts for the company where the unions have complete control and where they have that control with the full cooperation of the companies themselves?

Mr. LAUCK. I am not sufficiently acquainted with the industry to answer that dogmatically, but answering it in general, I would say no; because I do not think the incentive has been placed there. But I think it will be under the principles that we are advocating.

Commissioner WEHLE. Is it your opinion that, in general, in organized labor the workers should be brought to take an interest in their own productiveness?

Mr. LAUCK. Undoubtedly.

Commissioner WEHLE. How would you propose to bring that about?

Mr. LAUCK. Fundamentally, I would bring it about by exactly what we are advocating here—a basic equitable participation in the output of the industry and the granting of proper hours and proper conditions of work.

Commissioner WEHLE. Now, assuming that you have the equitable basis and proper hours and conditions of work and have those

fundamental conditions that you say are a prerequisite to bringing about the state of mind, what, then, would you say as to the methods or proper policy or the principles that should be adopted by organized labor with reference to the effectiveness of its own efforts?

Mr. LAUCK. I think there should be the fullest cooperation on the part of organized labor and every effort on the part of the managerial end of the business to reduce costs or increase output per dollar of outlay for labor and the fullest cooperation. I think you would have it. But you have a situation now where the cooperation of labor will result in the absorption of its efficiency, and they do not think they have a show to get it.

Commissioner WEHLE. I am not discussing that. Assuming that you have the state of mind through the conditions that you are urging upon us, how would you proceed to obtain that effectualization of labor?

Mr. LAUCK. Just stating the general principle, by developing the highest degree of cooperation between labor and the management.

Commissioner WEHLE. How do you propose that that shall be done?

Mr. LAUCK. Do you mean by machinery or—

Commissioner WEHLE. Well, yes; call it machinery, if you will, but what kind of leadership, not in general terms, but actually—how are you going to produce among the workers through their leaders a real interest in delivering a fair day's work for a fair day's pay?

Mr. LAUCK. By giving a fair day's pay to start with—

Commissioner WEHLE. We have assumed that, so do not let us go over that ground again.

Mr. LAUCK. Well, you have it, then. I do not think there is anything else to discuss.

Commissioner WEHLE. It has been maintained, you know, that if you have a group of workers who collectively bargain for position, and get a uniform wage irrespective of the individual performance of any one man in the group, you do not get the efficiency to which the public is entitled in order to get service and get goods and get commodities, or whatever the production in question is, at the lowest cost practicable to the public.

Mr. LAUCK. Well—

Commissioner WEHLE. Now, wait a minute. Of course, in stating that point of view I am assuming that the union has attained to what it wants—that is, the hours, wages, and conditions to which it theoretically is entitled; and since you have come here and given us so much helpful data and have given us so clearly your ideas on this subject, it seems to me we can well ask you to go into that fundamental, sharp question which, after all, does confront the unions as well as the public, in the last analysis, on account of the close pressure of economic necessity upon all of the nations of the world to-day and the greater difficulty of producing the goods which the world needs for consumption.

Mr. LAUCK. My answer to that would be that I would assume that the management would lay down, through agreement with labor, certain qualifications which the holders of the job, so to speak, must meet, and that the management would be responsible

to the public in that respect; that they would see that the proper amount of productivity should be attained by labor, or through agreement with labor, for the work that they were to perform, and that if the work is not performed, the management would eliminate those workers.

Commissioner WEHLE. Then your suggestion is that under perfected system of unionization and of cooperation between the union and the management, the individual member of the union should not, merely by belonging to the union and being an employee of the company, receive the uniform wage that all other employees receive in the same grade of work, but that he may be dismissed for incompetency to perform that work, or that he may perhaps be graded down and receive less than the better workers in the union who perform a higher degree of service. Is that it?

Mr. LAUCK. Not exactly. I would say that he should not be graded down. It would be incumbent upon the union, in admitting men to its membership—it would agree with the company, necessarily, regarding the qualifications which went with the job; and the union would have, of course, in its standards for membership, to have only members who could meet the requirements; otherwise, the union would be guilty of bad faith.

Commissioner MAHON. They require that now, do they not?

Mr. LAUCK. I think all of them require that now.

Commissioner WEHLE. Do unions at this time strictly require a high standard of efficiency of workmanship in their membership?

Mr. LAUCK. I think so; undoubtedly they have standards. I know most all other trades have, and I am certain the Amalgamated has, that a man, to be a conductor or motorman, must meet the tests of the management, even at the present time. That is, there could not be an arbitrary leveling up; of taking a man into the union and *ipso facto* he would get a motorman's pay, because the whole thing would be based upon bad faith on that assumption.

Commissioner WEHLE. Do you know of any instances where the union officials inspect the workmanship or performance of their own members and bring about the dismissal of their own members from employment, for inefficiency?

Mr. LAUCK. I do not know of specific cases at all, but I know that trade unions have certain specific requirements based upon the requirements of the trade, and a man is supposed to meet those requirements when he is a member of the union.

Commissioner WEHLE. Do you know whether such requirements are actually used before men are allowed to join the Amalgamated Association of Street and Electric Railway Employees?

Mr. LAUCK. I do not know what the entrance requirements of the Amalgamated are. I suppose that after a man has met the requirements of the company as to being able to be a motorman or conductor, he is qualified for membership. I do not really know. You will have to ask Mr. Mahon about that.

Commissioner WEHLE. Perhaps Mr. Mahon could answer that question. Could you Mr. Mahon?

Commissioner MAHON. What is that?

Commissioner WEHLE. The employment by a street-railway-company of men as platform operators. Does that, in itself, qualify such a man for membership in the Amalgamated?

Commissioner MAHON. No, sir. The agreements of our association with the companies—some of them vary as to the length of time, but there are either 60 or 90 days.

A man coming into the service is on probation for either 60 or 90 days. At the end of that period, if he is passed upon by the company as being competent, he then is accepted by our organization; but they first pass upon his competency, with a period which varies, as I say, in different contracts, some 60 and some 90 days.

I am more familiar with my own home city, Detroit, and there we have a period of 90 days. If, at the end of 90 days, the foreman is not yet satisfied with the man he may ask the committeeman at that barn to give him a longer time, and then a longer time is granted; but the period is there 90 days in which the man is on probation.

Then if found competent by the company and accepted, he becomes a member of the organization and comes under the terms of the contract. The contract provides that our men shall work, the work they shall do; and if they violate that they are subject to discipline, discharge, suspension, and so on.

The matter of the union investigating and disciplining—that is not their work; that is on the other side; the management looks after that, that is their end of it, to see that the work is carried out.

Commissioner WEHLE. But what I am looking after in my questions to Mr. Lauck, Mr. Commissioner, is some equivalent under a condition of unionization, to that degree of cooperation which Commissioner Sweet has been dwelling upon in connection with the Philadelphia situation, or in connection with what he conceives to be the Philadelphia situation, if you please.

Commissioner MAHON. Let me answer you, Commissioner, just on a point there. You have asked as to the condition of the men in this service. Of course, Philadelphia has an extraordinary set of men that no other company in the world has in their employment, from evidence that has been submitted here.

Of course, I will eliminate them from anything that I may speak of. But in the street-railway business the company aims to pick and select the best men; and hundreds of men come in that do not remain in the service, that are not competent, and pass out of the service.

During the war this industry, like all other industries, has been up against the question of labor. We had out of our organization possibly 12,000 or 15,000 men in the war, so that they had to take anything in the way of labor to meet the situation.

Now, however, that we are dropping back to normal, that is being eliminated and getting back; and they have no doubt the best set of men because they are all, as we say, "hand-picked"—carefully selected for the occupation, and if they do not qualify they get out of it.

Commissioner WEHLE. Mr. Lauck, then your conclusion is that, generally speaking, the unions have ahead of them in this country as a part of their future program and as they gain—or if they gain—more and more of the ground for which they are seeking economically, the task of stimulating among their own workers a desire for greater production and, to use your phrase of "paternalism," that that impulse must come and should come from the leaders of

the unions who do their bargaining for them rather than and in preference to coming from the management which is in a sense on the other side of the table?

Mr. LAUCK. Yes. And that when the workers feel that they have their fundamental rights satisfied they will very quickly and automatically and spontaneously respond to that impulse.

Commissioner WEHLE. Do you think or not that that thought that we have just been discussing is one that should at this time receive the attention of union leaders?

Mr. LAUCK. Of course, out of the war has come the demand for collective bargaining, and a great many employers hesitate to recognize the union, because they look upon the union with distrust because they fear it will restrict production.

Commissioner WEHLE. They fear it will standardize mediocrity, do they not?

Mr. LAUCK. They fear that and they fear that there will be restrictions on output; and no doubt the attitude of the employer like in the big industrial corporations like the Bethlehem Steel or the General Electric, where they have a system of collective bargaining, is that they think they can get a greater measure of return from cooperation and the elimination of the trade-union leader. I think that they are sowing the wind and going to reap the whirlwind, because temporarily the condition may be better, but permanently, on a basis of broad constructive policy, I think the more farsighted employer and the one who has the keener insight into present-day tendencies, is realizing that these schemes are simply passing and that the way to build soundly and for the future is by recognizing the union and building on that basis.

Commissioner WEHLE. Does it seem to you that the contention of unionism to-day would be received more readily by capital and the management if they were accompanied by a constructive movement among the union leaders to effectualize the labor of the members of the union?

Mr. LAUCK. Yes; I think that would be true if the unions also would be assured of their fundamental rights from capital.

I think it is due to the conflict between the two and the mutual feeling of distrust for each other, which ought to be eliminated by mutual agreement as to fundamental rights.

Commissioner WEHLE. But do you think that some of the distrust on the part of the management and capital would disappear if the contentions of unionism to-day were accompanied by such a constructive movement looking to a greater effectualization of union labor?

Mr. LAUCK. I think so. But I will illustrate how it does not meet with the response that it should. As you are well aware, Mr. Commissioner, during the war, in the effort to get production it was almost impossible at first to increase production under piece rates, for the reason that labor had found that when it did increase production under piece rates the piece rates were cut. That is not a matter of theory; that is a well-known, established fact, especially in the shipyards and munition plants.

Then the Government intervened and said, "Now, if labor increases its production, the piece rate should not be cut." The agreement was reached that the piece rate should not be cut, thus assuring

to labor further participation in the results of its work, instead of its being absorbed by the capital factor in the industry; and the result of it was a 100 or 200 per cent increase in the production on the part of labor and capital in building ships. That is a matter of record. And you had there the fullest cooperation, because of the recognition of this right; and it was mutually advantageous to the employer and employee, because the employers' profits increased and labor's compensation increased; and the Government got more ships or more munitions, as the case might be.

Then, on the other hand, for instance, two weeks ago in Canada, when the industrial conference was called by the Dominion Government for the purpose of working out this industrial bill of rights in Canada—which the President has called for next week here—and the same hours we are discussing, to give them an official sanction, if possible, through the agreement of capital and labor. The plea of the manufacturer in Canada was that we can not adopt these because we must produce, we must get all we can; and the reply of labor was that we are willing to produce, but we are not willing to produce for the manufacturer; we are willing to produce for Canada; we will produce for the good of the people of the world, but we will not produce for the capital factor in industry. That meant that there must be some agreement, that both factors were to be productive, the rights of each and the participation of each must be equitable.

Commissioner WEHLE. My question to you—and I would like to get an answer on it, really—

Mr. LAUCK. I was not seeking to evade your question at all.

Commissioner WEHLE. You have not answered my question yet, Mr. Lauck.

I have said, assuming that all the conditions that labor is asking for are met—that is, asking for as you state them—that is, that there shall be a fair wage, fair conditions, fair hours for labor, and a fair return for capital—assuming that those are met, first, is it desirable that union leaders should devote themselves to bringing about a greater effectualization of union labor? Now, can you answer that? I do not want you to answer it yes or no unless you feel that you can.

Mr. LAUCK. It is a very general question, of course. I think it would be incumbent—if I may answer it in this way—I do not seek to evade it, because I think it is one of the fundamental responsibilities of labor that they should cooperate to the fullest extent in obtaining maximum production under the conditions which I have outlined—I think it would be incumbent upon the rank and file of labor and upon the leadership and all connected with labor to obtain the maximum production; I think they would, because they would realize that if they did obtain it they would have an equitable participation in it or their rights would be protected; but I do not think they will, under the present, as long as they do not have the rights; and I do not think they will, under the Philadelphia plan, permanently, because I think it will fall of its own weight.

Commissioner WEHLE. You say that you do not think that union labor will interest itself in a higher degree of productiveness until it gets all that it is asking for—

Mr. LAUCK. I did not say that—

Commissioner WEHLE. Wait a minute. I do not want to misquote you. Strike that out——

Mr. LAUCK. Until it gets its fundamental rights.

Commissioner WEHLE. I will make my question read that way, then—until it gets its fundamental rights.

I want to ask you whether from your information and from your observation of the industrial struggle it would be to the interest of union labor to-day, when it is standing out for the conditions which it believes are essential to human happiness—the assurance that human labor is working on this problem of the effectualization of labor.

Commissioner MAHON. Does the gentleman assume that it is not?

Commissioner WEHLE. Well, Mr. Lauck has said, as I understood him, that it is not doing that to the extent that it might.

Mr. LAUCK. I say that it is not attaining the maximum cooperation that you would get; that there is a conflict now. The same situation would be true of a man who did not have the right of free speech under his government. You could not expect him to be enthusiastic about the government—like an autocratic government.

If capital was being subjected to demagogic legislation, and being deprived of its profits without due process of law, or to class taxation, under our Government, you could not expect the cooperation of capital.

While we have cooperation now between capital and labor, we will never reach the maximum of that or the real basic possibilities in it, until we have an extension of the same rights to industry as we have politically.

Commissioner WEHLE. Let me turn the figure just for a moment.

Do you think that if the American Electric Railway Association were to come to this commission and say, or to come to the public and say that the American Electric Railway Association has gradually become awakened to the fact that management of the street-railway companies has been inefficient, and it is addressing itself now throughout its entire membership to bringing about a higher degree of efficiency in management, so as to give the public the greatest benefit possible of the efforts of capital and labor in the industry; supposing that that were done by the American Electric Railway Association, together with a constructive plan for bringing about such a management in the future of all electric-railway properties in cities: Does it not seem to you, then, that the public, examining that plan and studying it might be a good deal more apt to make concessions that it would otherwise be unwilling to make?

Mr. LAUCK. Undoubtedly, yes.

Commissioner WEHLE. Do you think that the American Electric Railway Association membership would be justified in saying, "No; we will make no assurances to you of that sort at all; you must first give us the ideal conditions we are seeking for, and then we will address our minds to the subject of effectualization of management?"

Mr. LAUCK. I do not think that the American Electric Railway Association—and I am certain the employees have not—have taken any such attitude. If that is your understanding of the attitude of the employees in setting forth these principles you have entirely misconstrued it.

Commissioner WEHLE. No, it is not. I do not know whether you know—of course, you do, personally, I believe—that I believe in the union principle and have done a good deal to forward it at times, and have been associated with you personally in some of those activities.

Mr. LAUCK. I should have said the commission. I did not mean to say you, personally. I feared, from your question, that the commission possibly had misunderstood the attitude.

Commissioner WEHLE. But it seems to me in connection with this very valuable material that you are putting in here, it would be really a thing of value to have from you some statement on this subject, a frank statement on the question of the effectiveness of labor.

Mr. LAUCK. I have only stated so far that I think it would realize the maximum effectiveness. I think I could probably make it more explicit on the other side by saying that the management and the public would have every right to expect and demand and insist that there should be the fullest measure of production and cooperation from labor. Would that answer it? That it would be an essential duty and responsibility on labor, with the realization of its rights. I did not entirely grasp your question at the beginning. But I think it would be an absolute duty of labor to fulfill its obligations by realizing maximum production.

The CHAIRMAN. Just one or two questions: We now have a steel strike, and the organization which has called the strike there is a member of the American Federation of Labor?

Mr. LAUCK. Yes.

The CHAIRMAN. Under your rules and practices have you the right to call the street-railway employees out in a sympathetic strike?

Mr. LAUCK. Mr. Mahon will have to answer that.

Commissioner MAHON. What is the question?

The CHAIRMAN. I asked if, under your rules and regulations, you have the right to call out the street-railway employees of the United States in sympathy with the steel strike?

Commisisoner MAHON. Absolutely no. The American Federation of Labor is only a federation of international and national organizations that federated together to promote organization and to promote their interests in securing legislation and work of that kind.

The autonomy of each trade is within that trade itself. The president of the American Federation of Labor could no more say to my organization that its policies on anything were wrong or were right—the executive council of the American Federation of Labor has nothing to say on that; they might advise us—but it has nothing to say within the policy of the street-railway men, or any other international union affiliated with the American Federation of Labor. We, in convention, make our own laws and rules, and carry them out, and live up to them; and this is the principle of complete autonomy of each trade that is guaranteed to that trade in the prosecution of its own business.

The CHAIRMAN. Then your answer to my question is no?

Commissioner MAHON. In the steel strike it would be no, or in any other.

The only way that the street-car men could get into the steel strike would be by themselves to go in and cooperate with the steel men. The federation could not order them.

The CHAIRMAN. Is there anything under the rules or regulations of your organization which would prevent the street-car employees from going out in a sympathetic strike to help the steel strike?

Commissioner MAHON. That could prevent them?

The CHAIRMAN. Yes.

Commissioner MAHON. Not any more so than in any other organized or unorganized set of men deciding to go out.

Of course, we have our laws, and in compliance with our laws that would be a very hard thing for our men to do. We have our contracts with the different companies which provide for arbitration and all of those conditions before suspension; and it would be a very hard thing to do.

Of course, the men might go out with them, but it would be very hard, on the laws. The only way that that could be done would be by the international organization, through its executive council, calling together their council and then deciding to violate their own laws and repudiate their own contracts. That is really the only way it could be done.

Commissioner SWEET. I wanted to ask you one or two questions, Mr. Lauck. Do you know whether the matter of increasing compensation in proportion to the earning capacity of a street-railroad company has been considered?

Mr. LAUCK. The actual revenues or the net income?

Commissioner SWEET. Whether an incentive to greater productivity has ever been suggested as a means to be brought about, greater productivity and effort on the part of the men, in giving them a share in the net earnings?

Mr. LAUCK. I do not know of any practical application of that; no, sir. There may be.

Commissioner SWEET. I am speaking now of this particular industry.

Mr. LAUCK. Yes.

Commissioner SWEET. Of course, it is discussed; I do not know to what extent it is practiced, but I was wondering whether it had ever been discussed in this industry.

Mr. LAUCK. I do not know of any specific cases. There have been, as you know, profit-sharing schemes in other industries, and the attitude of labor in general toward the usual profit-sharing scheme is that it is too indefinite and long deferred and has the intervention of the management which may disturb the profit. But the best idea I know of in that connection is one that is being considered by a very large metalliferous corporation—I have forgotten the name of it—the Metals Co., or something. But this idea has been advocated, and I think it is practicable. They had it in Great Britain during the war in the terms of boards of production. That is, they had, in addition to the usual labor adjustment boards to settle matters of discipline, and so forth—in the units of the plant they had, corresponding to the different divisions of production, a joint board on production, and the idea was that the management and employees would cooperate to the fullest extent in reducing costs and getting maximum production; and there was an ascertainment of the labor cost of production—at recurring periods, two weeks or a month, and for every dollar or for every degree of reduction in the labor cost there was an immediate participation to a

certain per cent on the part of labor in the increase in the output. That had a direct stimulating effect and was immediately realizable and seemed to be the most practical scheme that could be worked out; and it was a matter of mutual working and striving toward this end, which must be the end of all the factors in industry, of course, both labor and capital.

Commissioner SWEET. Laying aside other industries, is it a fact that the productivity—meaning by that term the success to a certain extent of a street-railroad company—can be influenced for good or ill by the conduct of motormen and conductors?

Mr. LAUCK. Oh, absolutely; I should think so.

Commissioner SWEET. Could a motorman or a conductor without being dishonest or breaking any rules that would necessitate his discharge—is there a range in connection with courtesy and efforts to get business, and all that sort of thing, within which by extra effort on his part he could help the business?

Mr. LAUCK. Undoubtedly, to a very great extent.

Commissioner SWEET. Do you think it would be a good plan to give him the benefit of some degree of benefits of that kind and make it an object for him to do it?

Mr. LAUCK. I think so. I think it would stimulate his interest and productivity. In other words, he would have the welfare of the institution at heart and would strive, as is claimed in Philadelphia, for instant, that—

Commissioner SWEET. Then, I take it that your position, Mr. Lauck, is that a man who occupies one of these positions as motorman or conductor on a street-railroad company ought to receive a living wage anyway.

Mr. LAUCK. Yes.

Commissioner SWEET. One that would provide ordinary proper comfort?

Mr. LAUCK. Yes.

Commissioner SWEET. And that it might also have a stimulating effect and be of some value to let him participate in what, over and above that, might be acquired due, partly at least, to his extra efforts in the direction of courtesy and business ability?

Mr. LAUCK. Yes; and undoubtedly it would be very advantageous to the industry and to the public, and if you could work that out so it could be a joint effort on the part of the management and subordinates and bring about the best results, it would be the ideal condition to attain.

Commissioner SWEET. That would help along the spirit and increase the spirit of cooperation.

Mr. LAUCK. Undoubtedly; yes.

Commissioner SWEET. That is all.

The CHAIRMAN. That is all, Mr. Lauck.

Mr. LAUCK. May I just say one word in conclusion? We are advocating these principles as a part of the industrial bill of rights, so to speak, which is a part of the new idea of democracy in industry. Of course, as we are all aware, out of the war has come an entirely different attitude toward industry, the idea being more and more prevalent that industry is a social institution and must work for the common good. That both labor and capital in their rights

must be protected, but that the public interest must be paramount. So it has occurred to us in the consideration of this body that here you have a situation where the public interest is manifestly predominant and where there should be a recognition of these principles in working out a constructive program. And we have refrained from asking specifically for the establishment of any rates of pay by the commission, putting in the data as illustrating what should be a living wage, but we ask that the commission recognize these principles, and then they can be worked out by the management and the employees in the way that seems wise and best to them, and in the way that will prevent dislocations or undue interference with the proper development of the industry.

But we think that labor has a right to the recognition of these principles which were in the War Labor Board and the peace treaty, and we earnestly request the commission to consider them, and irrespective of the immediate financial effect, leaving it to the good judgment of the management and employees to apply them in the best way possible; and we are perfectly content to have the employees clothed with the responsibility of cooperating to the fullest extent and making them in every way fully responsible. We are fearful, on the other hand, of failure to recognize these principles, as we all know the tendency now is in industry, and especially on public utilities, if we do not have the fair measure of economic rights on the part of employees, the tendency will be to drive the conservative leaders into more radical proposals. And maybe that has the tendency, as in the steam railroad, to the advocacy of schemes which are really the autocracy of labor, which we do not think is any better than the autocracy of capital. But the autocracy of industry ought to be in the public; not in capital or labor, but in the public; and with just guarantees to both capital and labor.

The CHAIRMAN. Does that complete the case for the Amalgamated Association?

Mr. LAUCK. That completes our case, except for the requests that you have made for submission of certain exhibits, and we had another exhibit which we wished to submit as to the hazard of the industry and which will require a day or two to prepare. And if it is the pleasure of the commission, we would like to submit them for its consideration later.

The CHAIRMAN. Yes.

Commissioner MAHON. Mr. Chairman, it had been expected that I would go on the stand and explain the entire position of the organization. But I do not feel, acting as a commissioner, that I should go on the stand and give testimony in the case. However, there are some matters, for instance, like the questions asked by Commissioner Sweet in the early opening of the case regarding the health conditions and other matters pertaining to the organization that I think we should prepare and I will have Mr. Lauck prepare them in a statement to be placed before us, so as to show the conditions of the occupation as to the health of the men that follow it. And as to the policy of the organization, so far as its benefits go and so on, we will have Mr. Lauck prepare that and submit it to you.

With that I do not feel, as I said, like going on the stand. I only wish that I was not a commissioner at this time that I might ex-

plain fully to this commission the position of this organization and my own views and experiences in connection with the street-railway business.

I started in it in the days of horse cars and have followed its growth for over 30 years. I have been engaged in this business first as a driver of a horse car; from that to an electric car; from that to an official of the international organization, a position I have held now for some 26 years.

In dealing with the question following its growth from the horse car through the various periods of, first, electric systems of cities, and then the interurban connections that have followed that, I have followed the growth of the business. I have personally known a great number of the men who have been the promoters, some of them that have passed away, many of them that are out of the business, and the men that are in it to-day. Some of these people I have had my disagreements, economically, with; a great many of them personally are good friends of mine; some of them did not like me so well; but with the great majority that have been interested in the promotion of the business I have always been upon talking terms. While we disagreed economically, we did talk and discuss the conditions of the occupation and of the business. Not only have I given some study to it in this country but I have studied it as a representative of the American Federation of Labor in Europe, having twice been on the other side as a representative of labor, once going especially to investigate the conditions of the railroads there.

And, as I say, I regret that I am not in a position that I might give to this commission the information for what it is worth. It is 30 years of experience. But I do not feel that, acting as a commissioner here upon this matter, I should testify before this commission. However, if there are any points that the commission want me to prepare or submit, I will be pleased to do so; but I will refrain from being a witness on account of the explanation just made.

The CHAIRMAN. I think it is peculiarly fortunate, Mr. Mahon, that the commission has you as one of its associates. Your experience and judgment should be very helpful in working out a solution of this problem.

Mr. Ogburn, who is your next witness?

Mr. OGBURN. I believe this concludes the program put on by the labor side. Mr. Warren has some witnesses that he desires to bring before you to clear up certain matters, I believe. If Mr. Warren is ready, I assume we can proceed with his witnesses.

Mr. WARREN. Mr. Chairman, I want to put in some exhibits bearing on an inquiry of Commissioner Wehle in regard to the activities of the American Electric Railway Association and its study of practical means of efficiency.

Before putting those in, however, which I shall simply file with the commission with an explanatory word, I want to call again Mr. Mortimer, who testified at one of the earlier hearings, to discuss somewhat the comparative-costs figures of a number of companies which have been frequently referred to here, particularly the Cleveland and the Philadelphia companies, in comparison with one or two other companies.

Mr. Mortimer was chairman of one of the committees—the committee on the comparative cost of street-railway service—resulting in one of the exhibits which I am going to put in later; and he has made some study of these particular features, and I should like to ask him to take the stand again.

ADDITIONAL STATEMENT OF MR. JAMES D. MORTIMER.

Mr. WARREN. You are president of the Milwaukee Street Railway Co.?

Mr. MORTIMER. President of the Milwaukee Electric Railway & Light Co.

The CHAIRMAN. The record shows his qualifications.

Mr. WARREN. Have you made a study of the cost of street-railway transportation?

Mr. MORTIMER. For some years past I have either been engaged myself or have been directing studies of the cost of electric-railway-transportation service. For two years I was chairman of the committee on cost of service for the American Electric Railway Association, and that led to the formation of the bureau of fare research of the American Electric Railway Association and the selection of Mr. F. W. Doolittle as director of the bureau of fare research. Under the direction of our committee on the cost of passenger-transportation service there was prepared a book known as "The Cost of Urban Passenger Transportation Service," published in the latter part of the year 1915 and distributed to member companies in the early part of the year 1916. It was distributed as one of the compilations of the association.

That book examined into the economic status of the industry, the details of all operating expenses, the psychological factors as affecting riding and satisfaction with service; conducted two psychological surveys on the attitude of the public toward car service, one in Cleveland and one in Milwaukee. It made detailed studies of the method of collecting fares, of apportionment of the costs of service as between flat rates and zone systems.

It first outlined in 1915 substantially the groundwork of the zone system under which the Public Service Railway is now operating, and since that time Mr. Doolittle has kept up with the studies of the Cleveland situation. The book went into great detail as to the factors that would affect either the cost of service or the net returns that were derived from the investment of a given amount of capital. In that book is first shown that instead of the strap-hangers paying dividends they cost the street-railway company the most money; in other words, that the cost of service during the rush hour is much greater than the cost of service during the non-rush hours, and instead of the strap-hangers paying dividends they cost the railway company money. That is, the rate of return may be reduced from 6 per cent during the nonrush hours down to 2 per cent during the rush hours.

These investigations led to the development of the formula, or the application of the formula, or the correlation of the different formulas used by different regulating commissions in computing the cost of service.

Naturally enough our investigations disclosed that there were wide differences and fundamental conditions affecting all railways; that there were no criteria as to what were reasonable rates of fare. They necessarily depended upon local conditions, the speed at which cars were operated, the extent to which cars carried standing passengers during the rush hours, wage rates, cost of power, and the satisfaction that might be expressed by the management as to a given rate of fare depending upon a lot of circumstances, one of the first of which was how they were keeping their books and whether they were looking for anything in the future.

Now, there has been a good deal said here, or the inference was suggested that the success of the 5-cent fare in Philadelphia and the 3-cent transfer charge for a limited number of transfers was due to the cooperative plan. The so-called success of the Cleveland situation has been laid to the cost of service or type of franchise under which it is being operated.

The analysis which I propose to show you of the comparative earnings and relative rates of return that are being earned in three typical properties extending in range from about \$5,000,000 operating revenue, through Cleveland's \$12,000,000 up to Philadelphia's \$31,000,000, show there is no more relation between the particular type of management in any one place or the franchise than there might be between the fact that there is a 5-cent fare in Philadelphia because in years gone by it was largely a Quaker city or that the rate of return in Milwaukee is at the rate of 2½ per cent per annum because they make beer in large quantities there, or that the number of automobiles manufactured in Cleveland is large in volume.

Now, taking up the so-called Tayler franchise in Cleveland. That franchise was granted for a period of 25 years along toward the latter part of the year 1910. It purported to effect a settlement between the citizens of the community and the previous electric railways under which the city was to obtain the best possible service at the lowest possible price. The car riders were presumed to obtain the service at cost, and it has more recently come to be known as a cost-of-service franchise. I intend to show that the Cleveland franchise is a less-than-cost-of-service franchise.

One of the fundamental objections to the Cleveland franchise lies in the fact that the franchise does not require that any reserve for future replacements be accrued out of current earnings thereby requiring that the replacements of the physical property be taken care of either through charges through current operating expenses or by suspending them for 1 year, 2 years, 4 years and charging them up through the earnings of the subsequent years. In other words, according to the Johnson-Goff appraisal, the Cleveland Railway started out with estimated accrued depreciation, the liability to affect future replacements of about \$7,500,000. The capital was stated at something like \$19,000,000 net, but that was represented by property having a value of \$26,000,000. It was depreciated, in other words, 30 per cent.

Commissioner WEHLE. The value as of what date?

Mr. MORTIMER. The value as of December 31, 1909, or some such period as that. It was brought up to date of settlement. It was an appraisal made during 1908, and brought up to the close of the year,

1909, or the date of settlement, by using the capital expense from the date of the appraisal to date of settlement.

Commissioner WEHLE. Your point is that the valuation on the basis on which the rate was begun, as it was, was a valuation which was 30 per cent under the valuation based on present cost of reproduction?

Mr. MORTIMER. And based upon the amount of money that had gone into the property, into the physical property, in other words, taking into account just the investment of cash and the physical property, the security holders suffered a shrinkage of 30 per cent—a sacrifice of 30 per cent of the cash that had been invested. Since that time capital expenditures have been added, and all the money for those capital expenditures must come from the sale of new securities. The company has no surplus earnings of any kind whatsoever with which to create additions to its plant and property account.

Commissioner WEHLE. If they used the expedient of taxing land value for the cost of extensions, that statement of yours would not be necessary, would it?

Mr. MORTIMER. Every electric railway will require very substantial expenditures over and above the cost of the railway, the rails and the roadbed and the overhead trolley, the cost of which might be assessed against the abutting property or that the property that would be improved by the railway extension.

A single track, we will say, under normal prices, in a paved street, may cost \$32,000 a mile, but adding sufficient cars, power facilities, car-storage facilities, repair shops, etc., in order to provide for that, adds a good deal more to the capital value than the mere cost of the track and overhead trolley; so that there would be the general item that would have to be otherwise provided for than by direct assessment. If you attempted to assess directly the cost of electric-railway facilities against abutting property, it would require a relatively large fund to finance it, or the use of some kind of improvement bonds, or there would be no electric railways extended.

The principal hazard and the one that influences the cost of service primarily in Cleveland is the absence of any depreciation reserve.

As I say, the replacements have been rather heavy and abandonments of existing property—a typical example is the abandonment of the Cedar Avenue power station along in the year 1915 or 1916. It was carried on the books under the Johnson-Goff appraisal, as I recall, at a figure of \$720,000 or \$750,000. To have written that off in one year would have very largely increased the rates of fare under the cost-of-service plan, the ordinance under which the Cleveland railway is operating; and so it was asked to be suspended, taken out of plant and property account, and carried as a current asset, as subject to a write-off; and, by ordinance or resolution of the common council of Cleveland, it was written off at the rate of \$20,000 a month, \$240,000 a year, requiring something like three years odd in order to take care of it.

There has not been a year in the history of the Cleveland Electric Railway, with possibly the exception of the first year, since it began to operate, but what it has been carrying a substantial suspense account, created by the abandonment of property no longer useful.

The suspense account, for example, as of the end of July—July 31, 1919—is \$1,140,000. It has gone up to something higher than that. The suspense accounts prior to that increase in fares to 5 cents aggregated \$2,200,000. In other words, if an accountant were making a critical examination of the balance sheet, he would say that the company was busted to the extent of \$2,200,000.

Another serious defect in the Cleveland franchise is this: The franchise period is divided, for the purposes of this discussion, into two periods: One, the first 15-year period, and the other the next 10-year period.

The city has the right to purchase the property but is not obligated to purchase the property; and the method of purchasing it and the price at which it should be purchased—the determination of the price at which it shall be purchased—are set forth in the ordinance.

If the city does not indicate its intention either of purchasing the property or giving to the company another 10 years' extension so as to make the overall period of the franchise 35 years, instead of 25 years, at the end of the first 15-year period, then the company has the right to go to the highest rates of fare prescribed in the franchise, and the service-at-cost plan becomes inoperative.

The service-at-cost theory applies during the first 17 years, so far as it is possible to do so within the limits of rates prescribed in the franchise, and will continue during the next 10-year period, if the city extends the franchise beyond 1935 or indicates its intention of purchasing the property.

From the standpoint of the people who put their money into the Cleveland railway, there is no method of determining now whether the city is going to purchase the property in 1935 or whether the company will get an extension of its franchise beyond 1935.

The CHAIRMAN. In either case your money is protected, is it not?

Mr. MORTIMER. I am just coming to that point. In my opinion; no.

There is no depreciation reserve created against the accruing liability to effect future replacements.

From the standpoint of purchase and sale of the property, the property, presumably, at the end of the year 1935 will be in, roughly, the same per cent condition that it was as of December 31, 1909. In other words, there will be a 30 per cent depreciation on the value of the property, and the same holders may, with an expiring franchise, have to settle with the municipality on the same basis that they had to when the present franchise was entered into; in other words, they may have to take 70 cents on the dollar for their investment in the property.

That is one of the very serious hazards of the Cleveland franchise.

If the municipality had agreed to purchase the property at the end of 1935, or if the company had a price put to the city on the basis of the capital value, then that hazard would be eliminated. That hazard introduces factors in the cost of service in these respects: First, the return in the face of this hazard ought to be higher than current interest rates. This 6 per cent is only a current interest rate, and it does not adequately measure the hazards of an electric-

railway investment, even under regulation—even under continuous regulation by State commission.

The second hazard in the investment is this: If the company is going to have to settle with the municipality on the basis of 70 cents on the dollar at the end of 1935, so the city can get a new deal and provide for some other kind of cost-of-service plan, the difference, problematical as it may be, should now be written off, or a reserve should be created to write it off to anticipate that hazard. At least, that would be the conservative method of approaching it, if it were possible to include such costs in the cost of service under the Cleveland plan.

The fact that the 6 per cent return is too low is indicated pretty effectively by the company's inability to do any further financing by the sale of its capital stock carrying 6 per cent interest at par. You will note I use the term "interest." The company does not pay dividends on its capital stock. It pays interest, and that interest is set up on its books as a charge, as an accruing liability, irrespective of whether any dividends are earned or surplus is made for the payment of a return upon the capital stock.

In making an analysis of the cost of service under the Cleveland Railway plan, and in order to make it comparative with the cost of analysis of other companies, it is essential that we introduce these factors which the courts have said were necessary, which the regulating commissions have almost invariably held to be proper elements of the cost of service, namely: Adequate reserves to insure future replacements of physical property, and when those reserves are included, it appears that the service was never rendered in Cleveland on the basis of a 3-cent fare, but more frequently at a considerably higher figure.

If I may refer to this for a moment—however, I will not take the time to find it now—but the cost of service fluctuated from 3.42 to 4.13 during the time that they were collecting a 3-cent fare, and charged 1 cent for a transfer, if these elements of costs are included.

Commissioner WEHLE. If you include the 30 per cent?

Mr. MORTIMER. No; I think I had better read that. Mr. Doolittle, on page 434, shows, table 155, the cost of service as it appeared on the books for the year ending February 28, 1911, was 3.63; 1912, 3.50 cents per revenue passenger; 1913, 3.29; an average for the three years of 3.37.

If we include these elements of cost in addition to those of current, ordinary operating expenses, cost after providing for insurance reserve and accident reserve, ordinary maintenance and depreciation, 8 per cent return on capital value, the amortization for a 50 per cent loss in car value, figured on a 4 per cent sinking fund basis, the rates of fare go up to 4.43, 4.32, and 4.13 cents per passenger; an average of 4.29.

Mr. WARREN. That is, for the same three years?

Mr. MORTIMER. For the same three years.

The cost-of-service plan in Cleveland has been very advantageous in helping in the reduction of operation expenses. The most effective cooperation between the city officials and the operators of the property has thereby been obtained.

Commissioner MEEKER. May I interrupt you with a question?

Mr. MORTIMER. Certainly.

Commissioner MEEKER. It puzzles me a little as to how the company can get away with a 3-cent fare if it had not made the proper reserves for depreciation, replacement, and so forth.

Mr. MORTIMER. It is not permitted to make these reserves under the terms of the franchise.

To give you an illustration of that: The company started out with an accrued depreciation on its property of, in round figures, seven and a half million dollars. The accrued depreciation on its property to-day is, in round figures, \$12,000,000.

Commissioner MEEKER. That is, the plant is continually wearing out?

Mr. MORTIMER. Yes.

Commissioner MEEKER. And it is not being replaced?

Mr. MORTIMER. No; I do not mean that. Its liability to effect future replacements has increased from seven and a half million dollars at the end of the year 1909 to \$12,000,000 at the end of the year 1918. That is, the liability of the company to effect future replacements of its physical property, assuming that it is to continue in operation. That is, the liability over and above the amount of replacements.

Commissioner MEEKER. The period of recokoning has not yet come, but it hangs off in the future?

Mr. MORTIMER. It is exactly the same problem as confronts assessment life-insurance companies. There is no one of us that would care particularly to buy any large quantity of insurance, life insurance, in an assessment life-insurance company.

If any of us wanted to buy insurance we would go to a legal reserve company, a company that created a reserve against the accruing liability because of future deaths. We have that exact, same problem in providing for the replacement of physical property. The courts have all held it. They have supported it. It is the universal theory of providing for maintenance and depreciation adopted by regulating commissions in the determination of rates.

Commissioner MEEKER. Is my understanding correct, that the day of reckoning has not yet come, but it will eventually come, and the company will either have to get more liberal terms, or be forced into bankruptcy—either the company or the city? I don't know which.

Mr. MORTIMER. The day of reckoning for the company would come if the property was currently maintained—the day of reckoning for the company would come at the end of its franchise, if it had not procured a renewal of the franchise. It might have to suffer on negotiations with a substantial loss in its invested capital.

Commissioner WEHLE. Has that point ever been made to the city of Cleveland?

Mr. MORTIMER. I do not know whether it has been made to the city of Cleveland or not. It is not unknown to the electric-railway industry. It was first pointed out in October, 1913, at the convention of the American Electric Railway Association, in a paper by Mr. Duffy. At that time he had acted as arbitrator in the Cleveland case, contemplating additional maintenance allowances; and the conclusions at that time, and which have never been invalidated by subsequent investigation, were briefly these:

First, the service is inadequate and unsatisfactory, measured from the standards of service preserved either in Chicago by the board of supervising engineers, or by the more severe standards of the Railroad Commission of Wisconsin.

Second, because there is no surplus created for insurance reserve, accident reserve, maintenance, depreciation, renewal, to say nothing of the amortization reserve.

Commissioner BEALL. To make this a little clearer to Dr. Meeker, if I understand it: For instance, if you had a car that you bought a couple of years ago that cost \$10,000, and to-day it is only worth \$7,000; and we will say in 5 or 7 years it would be junk, the Cleveland company has made no provision against that.

Mr. MORTIMER. No; it has made no provision.

Commissioner BEALL. It is not replacing it either with other property or with cash reserve; so that when that car is worn out, it is faced with another investment of \$10,000.

Mr. MORTIMER. The point I want to make is this: That it is not adding anything to the property—

Commissioner BEALL. In place of it or in cash?

Mr. MORTIMER. To take care of this accruing liability—

Commissioner BEALL. Which goes on all the time?

Mr. MORTIMER. The theory of the ordinance is that at the end of the 10-year period, say, when your cars required abandonment, removal from plant-and-property account, it would be taken out of plant-and-property account.

If the removal of that from plant-and-property account and its writing off through maintenance expense would not overdraw the maintenance reserve, then it would be written off through maintenance expenses; but if, on the other hand, there were a sufficient number of cars that were abandoned at one time, they could not be written off through maintenance reserve without increasing the rate of fare, under the theory of the ordinance.

So, in order to keep the fare more nearly uniform, to take care of these fluctuations, they would explain this relatively large amount to the council and determine the rate at which it was written off; in other words, the rate at which this false asset was to be written off through maintenance expenses.

Commissioner MEEKER. Do I understand that the service-at-cost plan in Cleveland operates at approximately a 5-cent fare, because it does not operate on a 5-cent fare in reality? That is, it is not taking care of replacements?

Mr. MORTIMER. During the year 1918 the Cleveland Electric Railway did not earn 6 per cent upon the capital value. It paid its 6 per cent dividend. Charges to maintenance expenses were liberal, more liberal than they were in either the Milwaukee company, which I represent, or the Philadelphia Rapid Transit Co., and the charges to expense because of property that was written off during that year, were liberal; but if you added in the costs for the year 1918, these charges that had to be amortized and, in addition, set up the accruing liability because of future abandonments of property, then the return would have been less than 5.2 per cent; the figure which I show is considerably less.

The CHAIRMAN. Let me see if I understand.

At the time the contract was made, you say the property was considered as depreciated 30 per cent?

Mr. MORTIMER. That is correct.

The CHAIRMAN. Your idea is that a depreciation fund ought to be maintained during the period of the contract that will take up that 30 per cent?

Mr. MORTIMER. I think the proper way—

The CHAIRMAN. Can you answer that yes or no, Mr. Mortimer?

Mr. MORTIMER. I could not say exactly about taking it up.

The CHAIRMAN. Your desire is, at the end of the contract, that the property shall be 100 per cent instead of 70 per cent efficient or valuable, and that 100 per cent is to be taken care of through additional plant as well as a depreciation reserve?

Commissioner BEALL. I think you meant, did you not, Mr. Mortimer, that it would not be 70 per cent, but it would be 30 per cent less than the 70 per cent at the end of the 35 years?

Mr. MORTIMER. No; I did not mean that, Mr. Commissioner. I meant that if replacements were made at about the same rate that they have been made in the past, that if the property did not have any longer or shorter anticipated lives than the property that existed as of December 31, 1909, then the company should have on its books at the end of its franchise period a liability equivalent to 30 per cent of the property value at that time.

Now, if the liability as of December 31, 1909, was \$7,350,000—namely, 30 per cent of the property value at that time—then the increased liability would be the amount equivalent to 30 per cent of the capital additions during the period December 1, 1909 to 1935.

Commissioner SWEET. Is the \$7,000,000, 30 per cent or 70 per cent?

Mr. MORTIMER. The \$7,000,000 is 30 per cent. The \$19,000,000 is 70 per cent.

The CHAIRMAN. Do you mean no depreciation reserve was set aside by the Cleveland contract?

Mr. MORTIMER. No depreciation was set aside under the Cleveland contract.

Commissioner WEHLE. Does not the public-service law of the State of Ohio require that some sort of depreciation reserve shall be made each year?

Mr. MORTIMER. In respect to street-railway matters in Ohio the municipalities have home rule and have the right of contract under terms that are not subject to review of the Public Utilities Commission of Ohio.

Commissioner MAHON. The contracts are subject to a referendum vote of the cities?

Mr. MORTIMER. Yes; that is right.

Commissioner WEHLE. Who is Mr. Duffy, who brought out these facts at a meeting of the association, as you say?

Mr. MORTIMER. Mr. Duffy at that time was president and comptroller of the Milwaukee Electric Railway & Light Co. He had written several papers and had made some study of the cost of service, and for that reason he was asked by Mr. Stanley to come down to represent the Cleveland railway in this arbitration with the city. At that time the company was asking for increased allowance for maintenance of expenses, there had been an overdraft in

the maintenance reserve; the company had spent more money for maintenance than it had actually been allowed to collect from the car riders; with the result that for that account it also carried a suspense item which had to be written off in subsequent years.

Commissioner WEHLE. Are the cars of the Cleveland company in very bad condition—dilapidated condition?

Mr. MORTIMER. No; the cars of the Cleveland company are not.

Commissioner WEHLE. They have been running for 10 years now, since the franchise went into operation?

Mr. MORTIMER. There have been a substantial number of cars added to the Cleveland system. It has a very modern system of rolling stock.

Commissioner WEHLE. Have they not been maintaining those cars?

Mr. MORTIMER. The cars have been maintained.

Mr. WEHLE. How about the power houses and tracks?

Mr. MORTIMER. The power houses have been abandoned.

Commissioner WEHLE. Why?

Mr. MORTIMER. Because they could buy power cheaper than they could make it.

Commissioner WEHLE. So they did not have to maintain the power houses?

Mr. MORTIMER. No.

Commissioner WEHLE. How about the tracks? Are they in a bad state of repair?

Mr. MORTIMER. I would not say that the state of the tracks was subnormal. They have probably spent about all the money they could economically spend in the maintenance of the track for current repairs.

Commissioner WEHLE. If they have not been setting aside money for maintenance, how do you account for the track and the cars being in good condition?

Mr. MORTIMER. I did not say that during the last few years they had not been setting aside money for maintenance. I said they had not been setting aside money to effect future replacements of the property. There is decided difference between providing for current maintenance and the replacement of large elements of physical property.

Commissioner WEHLE. Does that include car replacement?

Mr. MORTIMER. The replacement of cars would be a proper charge against the depreciation reserve, if they had it.

Commissioner WEHLE. But you say they have bought an ample supply of new cars.

Mr. MORTIMER. Yes.

Commissioner WEHLE. Where did they get the money for that?

Mr. MORTIMER. They sold bonds and the capital stock.

Mr. WARREN. It was a capital expenditure?

Mr. MORTIMER. It was a capital expenditure. It was not a replacement expense, except to the extent they may have abandoned some smaller-type cars.

Commissioner WEHLE. How about tracks? Have they extended any tracks?

Mr. MORTIMER. They have.

Commissioner WEHLE. How have they done that?

Mr. MORTIMER. They have provided that money by the sale of capital stock mostly.

Commissioner WEHLE. Have they replaced any track in the last 10 years?

Mr. MORTIMER. They have.

Commissioner WEHLE. How have they done that?

Mr. MORTIMER. If the amount was relatively small it was charged to current maintenance. If the amount was relatively large, as in most years it has been, it was suspended, and the company went to the common council and procured an increase in its maintenance allowance.

Commissioner WEHLE. Oh! So really they have dropped the replacement item, and have extended the definition of maintenance to include replacement?

Mr. MORTIMER. That is correct.

Mr. WEHLE. Have you any objection to the philosophy of that?

Mr. MORTIMER. I certainly have.

Commissioner WEHLE. What is that? Isn't it just as broad as it is long?

Mr. MORTIMER. No; it is not. There is a distinct difference between the two. Replacements may be paid for either at the time that they are incurred, or they may be paid for by the car rider at the time that the liability to effect these replacements is accruing.

The first method is best likened to the payment of death benefits by an assessment life-insurance company. The second plan can be best likened to the accrual of the legal reserves of a life-insurance company.

Commissioner WEHLE. The fact remains, however, that whether you call it a depreciation fund, or whether you call it a maintenance fund, out of which all the replacements come, or whether you call it a replacement fund, the cash money that goes into the replacement comes out of earnings in some way or other?

Mr. MORTIMER. Comes out of earnings at the time that the replacement is made.

Commissioner WEHLE. You object to the use of the funds at the time they were used for the purpose of replacement, although they have also come out of earnings, just as they would have if that had been set to the credit of a replacement fund, instead of a maintenance fund?

Mr. MORTIMER. I object to the—

Mr. WARREN. Could it be stated this way, that if the reserve is set up, the car rider who gets the benefit pays for it, and if it is paid out of maintenance through a suspense account the future rider pays for it?

Mr. MORTIMER. That is another way of conveying the same idea. I was going to say that my objection to the plan of providing for replacements through current maintenance—that is, current operating expenses—was an objection directed at the time rather than so much to the method. Eventually the money comes from the same source, out of the car riders.

Commissioner WEHLE. Then Mr. Duffy's criticism does not really question the sufficiency of the earnings of the Cleveland company

to take care of replacements, but questions the financial method in which the replacements are made. Is not that true?

Mr. MORTIMER. No; it goes more fundamentally than that—

Commissioner WEHLE. Of course, I am not in the least bit opposing Mr. Duffy's view. I am only trying to get you to elucidate it more.

Mr. MORTIMER. This happens to be my view, because I wrote the conclusions to Mr. Duffy's paper. It is both a question of earnings, the sufficiency of earning to provide for this accruing liability, and it is also a question of financial method.

Mr. WEHLE. It is somewhat like the question as to whether or not, when you are building a sewer which is going to stand the community for 50 years and is extended to outlying districts of a city, whether that should be paid for now out of a short term of taxation to take care of that improvement or whether it should be paid for out of bonds which would make the future generations which receive some of the benefits of the sewer pay for its construction. It is a question somewhat like that; is it not?

Mr. MORTIMER. Yes; it is a question of imposing the burden upon those that are gaining the advantage of it during the time that they are possessed of such advantage.

Commissioner WEHLE. But if, instead of calling this a maintenance fund and paying for these replacements out of a maintenance fund, from year to year, you did place the money in a reserve account for betterments or other replacements, would you not get the same net result? The money is either spent as is the case at present in Cleveland, as the interest was from year to year almost in these replacements, or it is set aside and held and used in more of a lump sum to effect large replacements. Is there any real difference in principle there?

Mr. MORTIMER. Yes; there is a fundamental difference in principle in this respect, that in a street-railway property serving any one of our urban communities growing in population and in capital investment, the charges that have to be provided for to set aside these insurance replacements reserves will be larger than the charges for current maintenance, taken over an average of two or three years; so that you eliminate extreme fluctuations.

The problem is identical with the insurance problem which I have indicated.

Commissioner WEHLE. For how long a time has it been provided by contract that the street railways of Cleveland are to purchase their power?

Mr. MORTIMER. I think that contract was entered into in 1916. It may have been 1915. I am not certain as to the date.

Commissioner WEHLE. And over how long a period is the service to continue?

Mr. MORTIMER. I do not know as to that, but my only impressions concerning that contract are that it was procured under very severe competitive conditions, and the Cleveland Illuminating Co. is selling that power to the Cleveland Railway Co. at less than cost to the Cleveland Illuminating Co.

Commissioner WEHLE. It is a very long-term contract?

Mr. MORTIMER. I could not say as to that.

Commissioner WEHLE. If it were a very long-term contract with price adjustments in it, or something of that kind, so that the large element of power equipment were eliminated out of the business arrangements of the company would not there be a peculiarly strong reason there for abandoning the system of setting aside a special fund for betterments—the old-style of bookkeeping or auditing that you have just been advocating?

Mr. MORTIMER. You mean to create a replacement reserve—would there be more reason to abandon the replacement reserve?

Commissioner WEHLE. Yes.

Mr. MORTIMER. Not at all.

Commissioner WEHLE. Why?

Mr. MORTIMER. If the replacement reserve is not created upon the books of the corporation, you are not making a correct statement of the company's assets and liabilities.

Commissioner WEHLE. But if the money that would ordinarily go into the replacement reserve goes into the maintenance fund, and all the items which you are going to have to replace from time to time are relatively small items, involving such things as track, wire, cars, and so forth, which can be replaced in relatively small amounts and not in immensely large units, does not the reason for the old type of bookkeeping to a certain extent cease to apply?

Mr. MORTIMER. Not at all, Mr. Commissioner. All the elimination of the power plant does is to cut down the possibility of extreme fluctuations. In no way is the liability to effect future replacements reduced by the abandonment of the power plant, except to the continuation of the power plant.

Commissioner GADSDEN. I think it might help clarify the situation to say that the only effect of abandoning the power plant would be to precipitate the necessity of charging off the power house, would it not?

Mr. MORTIMER. Yes.

Commissioner GADSDEN. It would simply increase that situation.

Mr. MORTIMER. Yes.

Commissioner BEALL. Under the method of a depreciation reserve it means that the property is always either maintained on the original basis or you have cash for the difference. If, in other words, in 1935, when the franchise expired, a large amount of your track or power house or a large amount of equipment of whatever it might be had to be renewed under the depreciation reserve, you would either have cash for that or you would have substituted property of another kind which made up that value. But on the basis of Cleveland to-day you might come up in 1935 with two or three or four or maybe seven or eight or ten million dollars for various things which you did not have, and under the deferred maintenance plan it might be three or four or five years longer before you could make that up out of earnings. That is the difference. In one way you always have it, and in the other you may have it or may not have it.

Commissioner WEHLE. It is a matter of bookkeeping.

Commissioner BEALL. It is not. It is either there or it is not there.

Mr. MORTIMER. It is not a matter of bookkeeping. It is a matter of solvency.

The CHAIRMAN. Let me ask two or three questions, and I think we can clear this thing up. We will apply the questions to a car. What fund do you charge the ordinary repairs to a car?

Mr. MORTIMER. The repairs to a car will have to be divided into two parts. I am speaking now with reference to the practice which I advocate and carry through. If it is a repair to steps, doors, any of the operating mechanisms, such as motors or controllers, trucks or wheels, the repair is charged to maintenance expense.

The CHAIRMAN. If the car becomes entirely out of repair and must be replaced by a new car, to what account would you charge the cost of that new car?

Mr. MORTIMER. I would take the original cost of the old car out of plant and property account and charge the original cost of the old car to depreciation reserve or replacement reserve and the new car would be charged to capital account, thus maintaining the capital account in line with the original cost of the elements of property.

Commissioner GADSDEN. Supposing when that car was worn out you had not built up this reserve, what would you do? That is one of the greatest questions. Is it not a question that you pay as you go, pay as you enter, or whether you postpone it for a day of reckoning?

Mr. MORTIMER. That is correct. I think that is a fairly good distinction between the two principles. One is pay as you enter and the other is pay as you leave.

Mr. GADSDEN. Yes.

Mr. MORTIMER. And if you should run into a condition that is likely to confront the Cleveland railway in 1935, judging the future by the past, they would have considerable difficulty in paying as they leave.

Commissioner WEHLE. But my question that I began this long colloquy with was whether the various items of property of the company had been maintained in condition; and the answers which I got were that they are in good condition—the cars are in good condition, the tracks are in good condition, etc.; therefore, it seems to me that as a practical matter, this franchise having operated for 10 years with the pay-as-you-leave system, it seems to have operated about as well as the pay-as-you-enter system would have operated, and that really it does come down to a matter of bookkeeping. In other words, that the proof of the pudding having been in the eating, the eating seems to have been all right and the pudding seems to have proved all right.

Mr. MORTIMER. For the car riders who have ridden during the last nine years, the scheme has worked best for them. The company has, however, secured a liability to effect future replacements of four and a half million dollars in excess of what it started out with, besides having a suspense account of \$1,140,000 as of July 31. Its total deficits measured from this standpoint are now \$8,500,000, in round figures, accrued—

Commissioner WEHLE. But if all these items of property that we have discussed are in good condition, to what does this discrepancy refer—this discrepancy in maintenance?

Mr. MORTIMER. The question of good condition is a matter of opinion. It can not be measured accurately.

Mr. WARREN. Could you illustrate it by the purchase of an automobile, which lasts about four years and is kept in perfect repair each year, and yet at the end of four years a man has to buy a new one? Are not the two accounts something like what you lay aside to replace the automobile at the end of four years as distinct from what you spend on it each year in keeping it in good condition?

Mr. MORTIMER. Yes; I think there is a similarity there.

Commissioner WEHLE. I see the idea, Mr. Warren, but I am somewhat puzzled and I do not know whether any of the other commissioners are or not; if they are not, perhaps they can explain it to me in confidence, but I still do not see to what this large discrepancy is referable. I would like to have you explain it if you can. The discrepancy, as I understand, is in your funds replacement.

Mr. MORTIMER. That is correct; they have no replacements.

Commissioner WEHLE. Replacement of what?

Mr. MORTIMER. Of the present property, which measures the liability of the present-day property to effect future replacements.

Commissioner WEHLE. But the existing property, as I understand, is in good condition.

Mr. MORTIMER. Oh; it is in good condition for the purpose of running cars over it, but that does not in any way reduce the liability of the company to replace that property at some future date. The question of good condition is a factor entirely separate from the factor of financial replacement.

Commissioner WEHLE. Your idea is then, is it not, that the companies which may come to own these properties at the end of the period of the contract are running the risk all the time lest the properties will not be kept in good condition, and that although the properties are in good condition at the present time, yet in the period intervening between the present and the expiration of the contract between the companies and the city, there are many possibilities, and that there has not been such a reserve as according to the bookkeeping standards of public-service companies heretofore would sufficiently protect the company?

Mr. MORTIMER. Mr. Commissioner, it is not so much a question of operating condition or, as you say, good condition; it is a question of protecting themselves against second-hand value at the end of their franchise period.

Mr. WARREN. They would have to do it if there was no end to the franchise, would they not?

Mr. MORTIMER. Yes.

Mr. WARREN. Under an indeterminate franchise.

Mr. MORTIMER. Under an indeterminate franchise it would be required, because all indeterminate franchises carry with them some right on the part of the State or municipality to purchase or condemn the property, and they always have to look out for the conditions that may obtain at the time of condemnation. And testimony of engineers that the property was in 100 per cent condition would not absolve the company from having to meet the liability for the second-hand value of the property.

Commissioner WEHLE. What would be the answer of some protagonist of the existing system in Cleveland? We unfortunately

are closing up our hearings very soon, and it would not be possible to bring Mr. Peter Witt or any of these gentlemen here in time probably to complete the record on this particular rather controversial point that has arisen. As trustee for the whole situation how would you—and taking the position that Mr. Witt might take, or one on the other side of this question, or one of the other Cleveland gentlemen or perhaps Secretary Baker—what would be the answer to your point that you have made?

Mr. MORTIMER. Just the answer that you gave; the argument or the way in which you directed the questions to me is the viewpoint. It is typical of, say, the Boston Elevated Railway. The Boston Elevated Railway, as I understand, in the days when it was paying dividends and its stock was selling in excess of par, reached the conclusion that a depreciation or reserve of \$1,000,000 was adequate and thereupon declared dividends up to the amount available after providing a reserve of \$1,000,000. This was not an annual reserve. They said, "We will take care of current maintenance and replacement through operating expenses. We will always try to maintain our reserve at \$1,000,000. And I think they did maintain it at \$1,000,000. But the character of rolling stock and the condition of maintenance of the physical properties of the Boston Elevated is indicative of properties that take that viewpoint, that they can provide for modernization of their equipment, write off obsolete property and plants through current-maintenance expenses. They do not do it. Now, that is one of the fundamental things that is wrong with the electric-railway business. It is one of the things that is wrong with the Massachusetts electric-railway situation.

Commissioner WEHLE. That they have never charged off to depreciation enough and never have set up depreciation funds in the whole history of the industry?

Mr. MORTIMER. Generally the electric railways of Massachusetts have not created depreciation reserves; neither did they appropriate nor spend out of earnings sufficient money to keep their properties in modern condition.

Commissioner MAHON. Has not that been the fault of the entire country, not only Massachusetts but of the entire industry, that it never created a depreciation fund sufficient?

Mr. MORTIMER. I think, Mr. Commissioner, that that is a fundamental defect in the business. There are some exceptions to the rule.

Commissioner MAHON. That could not occur either in Great Britain or Canada could it?

Mr. MORTIMER. In Great Britain and in Canada I think it has been the practice to view this depreciation reserve as somewhat more compulsory.

Commissioner MAHON. They are required by law to do it, are they not?

Mr. MORTIMER. Not in British Columbia, which is the only part of Canada with which I am familiar. Many of the board of trade ordinances or so-called franchises or rules under which the tramways in England operate do require the setting up of reserves of this kind.

Commissioner MAHON. If that had been required by the laws in the early days we would have avoided much of this trouble we are in now in the street-railway world, would we not?

Mr. MORTIMER. We would not have avoided the necessity of increasing rates. We would have avoided the condition that left so many electric railways with their credit very badly impaired and without ability to finance the necessary changes in equipment that are bound to come as a result of this period of stress.

Commissioner MAHON. Then going back to Cleveland, I can not recollect, but there is a fund for depreciation in the Cleveland road. I do not know what they call it.

Mr. MORTIMER. They call it a maintenance and depreciation fund. It is provided for by certain credits to the fund as specified or agreed or ordinance rate per car-mile operated. The maintenance expenditures are charged, actual expenditures for maintenance involving disbursements of money for material and labor, against this maintenance and depreciation fund. It was the theory of the ordinance that there would be some reserve created first to take care of fluctuations in the amounts expended for maintenance or the charges against the fund because of property abandoned and also to maintain the company solvent, but the expenditures for maintenance have been very much larger than were contemplated.

Commissioner MAHON. What was the position? You spoke of Mr. Duffy's paper which has led up to this discussion. At that time there was an arbitration. I think that was over the question of the power house that that arose, I am not sure. But you spoke of that. There was an arbitration in which there were several engineers, and there were two values given. I think Mr. Duffy represented one view and possibly Mr. Dupont, or whoever was on the other side of that question, the other. What was the view of the other side?

Mr. MORTIMER. There were two questions to be arbitrated at that time. One was the increase in the maintenance allowance, because there had been an overdraft in the maintenance reserve; and the other was an increase in the operation per car-mile out of which the company paid the platform and other wage expenses other than maintenance. Mr. Duffy represented the company and the late Mr. Dupont represented the city. Judge Killeets, as I recall it, was the third arbitrator. As to who appeared before the body I do not know, nor what were Mayor Baker's contentions at the time I do not recollect; but all I recollect is the result. There was an increase in the maintenance allowance and there was an increase in the operating allowance awarded by the third arbitrator, Judge Killeets.

Commissioner SWEET. If a city like Pittsburgh, for instance, wished to adopt the Cleveland plan, would there be any difficulty in making an amendment to the ordinance so as to provide for a reserve such as you speak of?

Mr. MORTIMER. None whatever.

Commissioner SWEET. So that the Cleveland plan could be adopted by any city that wished to adopt it and avoid the objection you have raised by such an amendment. That is true, is it not?

Mr. MORTIMER. That is correct; yes.

Commissioner SWEET. Now, if I understood you correctly, I think you said that the betterments, the improvements to the road, new rails, new cars, and that sort of thing, that kept the Cleveland system in pretty good condition had been paid for by the sale of stock?

Mr. MORTIMER. I said that addition to the property that increased the value of the property and was paid for principally by the sale of capital stock.

Mr. WARREN. That is proper, is it not?

Mr. MORTIMER. Yes.

Commissioner SWEET. That is entirely proper, because they have the additional property to show for it.

Mr. MORTIMER. That is correct.

Commissioner SWEET. But you did not make the statement that these improvements, the purchase of new cars to take the place of old ones or replacements have been paid for out of the sale of stock.

Mr. MORTIMER. No; I do not mean to say there had been any error in proper bookkeeping in the matter of replacements.

Commissioner SWEET. Aside from bookkeeping, I want to know what has paid for these new cars and rails, etc., that have kept the system in good condition. Is that from the earnings of the company?

Mr. MORTIMER. Any property that was abandoned was taken out of plant and property account and charged to this maintenance and depreciation reserve or was suspended and subsequently written off the rough expenses.

Commissioner SWEET. Has the car rider paid for new cars to take the place of old cars that were worn out under the Cleveland system, or has the money been borrowed by the sale of stock—that is the same thing practically—to pay for new cars to take the place of old ones? Under the Cleveland plan, how have they got the money to buy new cars to take the place of old ones?

Mr. MORTIMER. It has come from operating expenses and that in turn from the car rider.

Commissioner SWEET. So the car rider, under the system which has been in vogue, has actually paid for the new rails, etc., to keep the system up, and the car rider has already paid for that?

Commissioner BEALL. Yes; but he has not paid it for the accrued depreciation.

Commissioner SWEET. Hold on just a minute. Do you want to take him up now?

The CHAIRMAN. Go on, Mr. Sweet.

Commissioner SWEET. Now, if a reserve such as he suggests would have been required, the car rider would have been obliged to pay something more in order to create that reserve. Is that correct?

Mr. MORTIMER. On the average; yes. The car rider with a growing property would have been required to pay, because the value of the property is increasing from year to year by successive increments.

Commissioner SWEET. In order to create that fund, the fare would have to be somewhat larger than it has been, so that the money derived from that increase of fare could be set aside as a reserve fund to take care of future depreciation?

Mr. MORTIMER. That is correct; yes.

Commissioner SWEET. Therefore, your contention is, if I understand you aright, that the fare has been lower than it should have been, lower than it would have been, under a proper system?

Mr. MORTIMER. That is correct.

Commissioner SWEET. And that the Cleveland system would not have made the showing it has with regard to fares if this fund had been created, because it would have been necessary to charge a larger fare in order to create that fund. Is that correct?

Mr. MORTIMER. That is correct; and in addition to that a part of the interest that the company has been paying from year to year has in part been paid out of capital.

The CHAIRMAN. The commission will stand adjourned until 2.15. (Whereupon, at 1 p. m., a recess was taken until 2.15 p. m.)

AFTER RECESS.

The CHAIRMAN. You may proceed, Mr. Mortimer.

STATEMENT OF MR. JAMES D. MORTIMER—Continued.

Mr. MORTIMER. It is difficult for either the public or regulating commissions or shareholders or managements to distinguish between the success of one corporation as compared with another, without taking into account the so-called standards of service.

The standards of service are, in large part, psychological. They have an important psychological aspect. A comfortable standard is something like a comfortable wage—it depends upon what the people are taught to think. It is not capable of universal determination. The standard of comfort in one city may be entirely different than the standard of comfort in another city. The standard street-car comfort I am referring to.

We made a traffic survey in 1915 in the city of Cleveland, and these were noticeable characteristics of the operation of street-cars there as contrasted with some other places:

The rush-hour traffic was very peaky and the cars were very heavily loaded. That that is a fact is supported further by the large number of 5-hour runs that they evidently have on their schedules, as testified to by Mr. Rea, of the Amalgamated Association.

We also found that the traffic during rush hours called for a good many standing passengers; in other words, there were standing passengers during the nonrush hours when most of the standards of service require that there shall be a surplus of seats.

As I understand it, the schedules in Cleveland are not designed with respect to the number of passengers that may be passing on cars at a given point at a given time, but are rather determined from outside observations and some idea as to what the traffic will stand in the way of service. When I say what the traffic will stand in the way of service, I mean what a given rate of fare will stand in the way of service.

To see what that really meant in the way of dollars, Mr. Doolittle applied to the traffic service in the car riding of Cleveland the standard of service that had been prescribed by the Wisconsin Railroad Commission appertaining to Wisconsin. Wisconsin standards called for 67 seats per 100 passengers during rush hours, during a 15-minute period, and 133 seats per 100 passengers during non-rush hours. In other words, a surplus of 33 seats; so as to take

care of variations in the rate at which the people might flock to the cars, or abnormalities in schedule.

If the Cleveland railway had been required to adopt the standards of service required by the Wisconsin Railroad Commission, it would have added \$477,000 a year to its operating expenses, which, at the then capital value, would have reduced the return about 1 per cent. That is an approximate measure of the influence of standards of service.

In order to give you that same view from another standpoint, I call your attention to some computations contained in Mr. Doolittle's book.

He takes a hypothetical electrical railway, containing the normal ratio of plant value to operating revenues and the normal distribution of operating expenses, including an allowance for depreciation—that is, replacement insurance—and on that ratio of value the return, with a normal distribution of traffic and apportionment of service, was 5.23 per cent.

It ordinarily seems a relatively small thing to city officials and regulating authorities to order a 10 per cent increase in service. An increase of 10 per cent in service during rush hours would have reduced this return from 5.23 down to 4.37—not quite 1 full per cent.

So, when we speak about street-car service being satisfactory in one city or satisfactory in another, we are introducing an indeterminate element, an element of which, usually, the managers have no quantitative measurement; the public has no quantitative measurement of it; and an increase or decrease in the ratio of standing to seated passengers will increase the returns or decrease the returns in substantial quantity.

That, however, does not mean to say that it is the standing passengers that pay the dividends, because it is interesting to note that in the normal distribution of traffic in a city other than Cleveland, with an average return during the 24-hour period of 5.23 per cent, taking the system as a whole, and then apportioning the cost during the different hours of service, we find that the highest rate of return is made between the hours of 6 and 7 in the morning, or at the rate of 7.53 per cent per annum; and the return between 5 and 6 at night is 4.01, and between 6 and 7 at night is 3.77. Service between 12 and 5 o'clock in the morning yields a negative return of 4.14 per cent per annum.

To show the influence of peaky traffic upon the rate of return, imagine all this traffic spread out into 24 hours so that it could be handled uniformly. If all that traffic were handled uniformly, this return of 5.23 per cent goes up to 10 per cent return.

So that as between a peaky traffic and a uniform traffic, with the same capital investment and the same car service, there is a wide opportunity for variation in the rate of return, because increased operating expenses imposed upon the company in handling the larger number of cars, and all that sort of thing, and the increased wages given for short-hour service during the rush-hour period.

I have mentioned briefly that the rate of return now being earned upon Cleveland is not regarded by the management as sufficient. It is insufficient from the viewpoint of the management, evidently because the capital stock which carries 6 per cent interest

is selling at less than par, and it is impossible for the company to procure any additional capital from its shareholders by selling stock at par when carrying only 6 per cent interest.

The CHAIRMAN. What is the present market price?

Mr. MORTIMER. The last figure I had on it, it was 93; 93 per cent of par. Whether it is higher or lower than that I don't know; but at the present moment my information is that it is under par.

Commissioner WEHLE. That was before the suggestion of increasing the return, was it not?

Mr. MORTIMER. Yes, sir; that was before that time. Whether the suggested increase of return and the arbitration following the strike has attached some speculative value to the stock I am unable to say.

I will give to the commissioners a set of tables which will compare some of the traffic factors in the three cities that have, in some respects, been most prominently before the commission.

I include the Milwaukee Electric Railway & Light Co., the railway department of the Milwaukee Electric Railway & Light Co., because we know a great deal about the Milwaukee Railway & Light Co. There are no problems of undetermined valuation; there are no problems of the amount to be allowed for depreciation; and it is a company which has endeavored over a long period of years to accumulate a depreciation reserve sufficient to provide for the replacement of elements of physical property as they are abandoned from time to time.

The Milwaukee company has not been free from the vicissitudes of electric-railway operation.

The CHAIRMAN. You discussed that quite fully at your last appearance.

Mr. MORTIMER. Yes, sir.

Mr. WARREN. The Milwaukee is also at present operating on a 5-cent fare?

Mr. MORTIMER. Yes. I want to mention that—that here are three companies where the base fare is 5 cents:

Cleveland, operating at a 5-cent fare plus 1 cent for transfer, without rebate, as I understand; Philadelphia, operating most of its service at 5 cents, but during the year 1918 earning average receipts per revenue passenger of 5.6 cents; and Milwaukee, operating at a straight 5-cent fare with free transfers.

The population per mile of track served is practically the same so far as Milwaukee and Cleveland are concerned, namely, around 2,360 people per mile of track. The population served in Philadelphia is 2,808.

The average riders per capita of population served during the year 1918 were highest in Cleveland, at 337, next highest in Philadelphia, and lowest in Milwaukee. The last figure gives the receipts per capita of population served and shows the largest earnings per capita.

I will say in passing that it is the general experience that the earnings per capita increase with the number of people.

Some foreign investigations tended to suggest that the rides per capita increased as the square of the population up to 500,000 population, as the first power; that is, directly proportional to the population.

So that the higher receipts in Philadelphia than obtained in Cleveland or Milwaukee are due to two things: First, the larger number of riders per capita, and, second, the higher rates of fare per ride.

The next sheet shows certain general statistics, such as the investment in property and plant per dollar of operating revenues. This property and plant is the cash cost of the physical property of the Cleveland Railway. It amounts to \$3.30 per dollar of operating revenues. There is practically little power-plant investment contained in that, because of the fact that the company is buying its power and the power-plant investment has been taken out, and that portion of it which has not yet been written off through operating expenses is in process.

The Milwaukee Electric Railway & Light Co. shows \$2.98 valuation of the physical property per dollar of gross receipts. That does not include any power-plant or substation equipment of any kind, because it has been necessary for us to take out our entire investment in our so-called utility, and carry it as a separate utility, for the purpose of apportioning the cost of producing power between the railway at one end and the electric-light-and-power utility on the other.

There are no available data appertaining to the investment in plant of the Philadelphia company, but in the subsequent computations we will have to approximate them.

The per cent of operating pay rolls to operating revenues in the case of the Philadelphia company was 42 per cent. In Cleveland these data are not given in the reports, and we were unable to obtain it recently, because of their pressure of work in the arbitration on the rate of return. In the Milwaukee company the percentage was 4.87.

The next item is important. The amount of operating revenues expended on the maintenance of the physical property: Cleveland shows the highest, with 19.15 per cent of the operating revenues expended on current, ordinary maintenance. That item does not include the amounts that are being charged because of amortization of defunct equipment. That is a separate charge, as will be shown in the income account analysis.

Milwaukee expended 16.89 per cent of the operating revenues on maintenance, and I know that during 1918 our maintenance expenses were subnormal. I feel that we ought to have expended nearer 20 per cent during that period on current maintenance. The results for the current year will show larger expenditures.

In Philadelphia there was expended 14.25 per cent of the operating revenues on current maintenance out of a total appropriation for maintenance and replacements of 15 per cent of the operating revenue. The company carried to the credit of its depreciation or renewal reserve about \$319,000, or three-quarters of 1 per cent of the operating revenues.

The next sheet shows the relative earning power of each mile of track, of the average mile of track; they range from \$29,700,000 for Milwaukee, up to \$50,369.

Our car-hour figures for Cleveland may contain some small possible error, because the data are not included in their annual report. The figures are not kept compiled monthly in the system of accounting, and we have approximated from the scheduled speed.

Cleveland had the highest earnings per car-hour of \$3.49, Philadelphia followed closely with \$3.27, and Milwaukee earned \$2.90.

Cleveland had the second-highest earnings per car-mile. Its earnings per car-hour were high, because it has a higher mileage than either of the other two companies. The data will show that Milwaukee and Philadelphia operated a little under 9 miles per hour, whereas Cleveland ran about $10\frac{1}{2}$ miles per hour; and that additional $10\frac{1}{2}$ miles is a very important factor in increasing the return or in reducing expenses.

The revenue per passenger was 4.42 cents in Cleveland, 4.66 in Milwaukee, and 4.61 in Philadelphia.

The next sheet is of importance primarily in showing the percentage of transfer passengers. In Cleveland the percentage of free-transfer passengers to revenue passengers was 37, only 3 per cent less than what it was in Milwaukee.

In Philadelphia it was 24 per cent. In other words, the free-transfer facilities, as has been previously explained to this commission, are not as extensive, or at least do not attract as large a proportion of the total traffic as they do in most cities.

The next sheet shows some of the data upon which the previous tables have been compiled. The principle, however, is contained in the last two lines, where the measure of service given to the city is measured in car-miles per annum, per capita of population served, showing that the Cleveland railway operates 45 car-miles, the Philadelphia company 49, and the Milwaukee company 39.

The car-miles per capita, according to statistics, invariably increase with the size of the city, because of the distribution of population; and the amount of riding which a wider distribution of population in cities induces.

The character of the loading of cars, and the apportionment of service to the riding, and in some respects some measure of skill is shown by the last line.

In Cleveland they carry 7.47 revenue passengers per car-mile. That figure is obtained by taking the total revenue passengers and dividing by the total car-mileage: In Philadelphia 6.38 and in Milwaukee 6.88 revenue passengers per car-mile.

The next title shows the income account. It appears that the Milwaukee company has operating revenues of about 40 per cent of those of Cleveland, and the Cleveland company operating revenues of about 40 per cent of those of Philadelphia.

The principal item of interest as we go down the line is the relatively large amount that is charged in the case of the Milwaukee railway utility for power compared with that in Cleveland and in Philadelphia.

The ratio between the amount paid by the Cleveland company to that paid by the Philadelphia company is in approximate proportion to their relative share as measured by their earnings.

The amount charged in the case of the Milwaukee company is due to the fact that there is included in that item the entire return on the entire investment in car facilities apportioned to the railway in transmission and distribution facilities. In other words, it assumes that the railway has no power facilities whatsoever. Of course, that is not true in Philadelphia. While Philadelphia buys

some portion of its power, it also generates some portion of its power, and there are included in the Milwaukee power costs a certain figure for return and replacement allowance upon the investment in power facilities, which would be carried in some other item ordinarily in respect to the other companies.

Using these computations, the return earned by the railway utility of Milwaukee was 2.66; that earned by Cleveland, 5.20. There is no figure included for Philadelphia, because I leave that to subsequent analysis.

The next table merely shows total operating expenses and operating expenses per car-mile.

Philadelphia shows total operating expenses of 23.90 cents; Cleveland, 27.73 cents; and Milwaukee, 29.77.

The higher Cleveland figures are primarily because of the allowance for depreciation. The higher Milwaukee figures are partially because of the allowance for depreciation and partly because of the increased power cost.

Philadelphia expended 2.02 cents per car-mile for maintenance of way and structures; Cleveland, 3.03 cents; Milwaukee, 2.25 cents.

Per mile of track, Philadelphia expended \$2,814; Cleveland, \$3,263; and Milwaukee, \$2,163.

Milwaukee expenditures were subnormal last year.

The maintenance: Philadelphia, 2.68 cents per car-mile; Cleveland, 3.21; Milwaukee, 3.16.

Mr. WARREN. Maintenance of equipment you mean?

Mr. MORTIMER. Maintenance of equipment; yes. And when maintenance of equipment is measured per car owned, about \$800 per car for Philadelphia; \$63 for Cleveland; and \$910 for Milwaukee.

It next shows power expense—\$5.75 per thousand passengers in Philadelphia, \$4.39 in Cleveland, and \$7.85 in Milwaukee.

The next table shows the cost of conducting transportation. The item is not of particular interest, except that you can apply to its computations for showing the effect in the costs per passenger of increase in wages.

The last sheet shows the general and miscellaneous expenses and depreciation allowances and taxes. It is interesting to know that the taxes and depreciation allowances to operating revenue all hover around the same point, ranging from 5.84 per cent to 6.01 per cent. Depreciation computations: Philadelphia, 1.03 per cent of operating revenue; Cleveland, 6.03; and Milwaukee, 7.55.

General miscellaneous expenses in per cent to operating revenue were lowest in Philadelphia, 7.01, and highest in Cleveland at 11.13 per cent.

Turning back to the sheet marked traffic statistics, I direct the commission's attention to that figure revenue car-miles per revenue car-hour: Philadelphia, 8.95; Cleveland, 10.43; and Milwaukee, 8.98.

Now, to show you what the influence is, suppose the Milwaukee company could have operated the same schedule—that is, obtained the same number of car-miles per car-hour as obtained in Cleveland—and assume that its power cost per mile was the same as Cleveland's, then the saving of expenses to the Milwaukee company, by reason of that, would have been \$246,000 per year on platform labor, and \$356,000 a year on power, a total of \$602,000. That

\$602,000 is equivalent to 3.76 per cent return upon the railway-utility capital, and if that were added to the 2.66 shown in the other figures the return of the railway utility would have been increased to 6.42 per cent, which I assume would be an approximately reasonable return under present conditions, and that would have been the result that would have been obtainable at the 5-cent fare and under the conditions under which we operate.

Mr. WARREN. That would have been effected materially by increasing the schedule to the Cleveland schedule?

Mr. MORTIMER. The influence of increasing the schedule speed to the Cleveland schedule would have added $1\frac{1}{2}$ per cent return; $1\frac{1}{2}$ per cent return is a measure of the cooperation that the city of Cleveland gives in the operation of the street-railway service,—keeping the teams off the tracks, arresting any teamster who in any way interfered with street-railway service, and in other ways preventing complaint being made because of fast street-car service, and so forth.

Now, I have indicated that the Cleveland Railway balance sheet is defective because of the absence of setting up any depreciation reserve or any adequate reserve. There should be recorded on the books of the Cleveland company its plant-and-property account at about \$40,000,000 instead of \$32,000,000, with corresponding increase of about \$8,000,000 for accrued depreciation at the time of the Johnson-Goff appraisal, and in addition about \$1,000,000 more for that accrued since that time over and above for replacements which have been made, so therefore a reserve liability, in round figures, of twelve to twelve and a half million dollars, if the property be taken at a 30 per cent condition. I think probably a 30 per cent deduction for depreciation in 1909 was high, but it was a trade that was made and one that the Cleveland railway has to struggle under. And the Tayler ordinance contemplates that the property will be maintained in the same percentage condition as was found in the so-called Johnson-Goff appraisal.

The Milwaukee company has recorded on its books appropriations for depreciation reserve which was slightly in excess of the estimated liability as found by the commission in its appraisal of January 1, 1914, brought up through successive periods such as I have indicated.

Now, an examination of the Philadelphia balance sheet, however, shows a depreciation liability of about \$1,200,000, or an amount of 1 per cent or less of the cost of the physical property measured from any conservative standpoint.

If it be assumed that the fair value of the railway property of the Philadelphia company is four times the gross earnings, that would call for, we will say, a minimum valuation of \$120,000,000. It is generally found that, in recent appraisals where property has been fairly well maintained, the liability to effect future replacements is measured by about 15 per cent of the original cost. Now, 15 per cent of \$120,000,000 is \$18,000,000, and \$18,000,000 would be the fair measure of the present liability of the Philadelphia company to effect future replacements over and above expenditures made for current maintenance.

It has a reserve of about \$1,200,000, so that there is a deficit in its depreciation reserve of \$16,800,000, in round figures.

That there is some justification for figuring adequate reserves in the case of the Philadelphia company must be considered in the light

of the leases under which the Philadelphia company operates. I think this lease is probably typical: Section 21 of the Union Traction Co. lease to the Philadelphia Rapid Transit Co., which refers to maintenance and replacement and the condition of the property when it shall be turned back to the Union Traction Co., which I will read for the record, because I do not believe that it is otherwise in:

It is the true intent and meaning of this agreement that the railway system herein demised by the Union Traction Co. shall be at all times kept in the same general good repair and condition in which the same now is or will be upon the completion of the contemplated improvement, and fully equipped with the best and most improved equipment for operating the same. Rapid Transit Co. shall, at the expiration or other termination of the lease, render to the Union Co. all the property and premises in the same good order and condition in which they now are, with the streets upon which the various lines of railway are laid paved in the same good condition.

But that is not all:

The Transit Co. accepts the premises as being in all respects fully equipped in a modern manner as a first-class street-railway system with all the proper and necessary railways, machinery, etc., and the Transit Co. shall on the determination of the lease deliver to the Union Co. the entire system fully equipped and in a thoroughly first-class manner in all respects, with all improvements which may be then in general use on similar first-class street railways of like extent, and in case the Union Co. shall object as to the class of property that is being turned over or any part of it as not being in first-class condition or that they are not equipped as provided for or intended to be provided for by the lease, then any question of dispute shall be determined by arbitrators, and if said arbitrators find in favor of the Union Co. an award shall be made in favor of the Union for such an amount of money as shall enable the Union to properly equip such system in accordance with the true intent and meaning thereof.

Those provisions contain a very heavy contingent liability, because the cost to the Philadelphia company of settling under these leases may vary over a substantial range depending upon the extent to which the art may have changed previously to the termination of the leases.

Now, if we take the income account of the Philadelphia Rapid Transit Co. for the year 1918 and reconstruct it by making a depreciation allowance of, say, $2\frac{1}{2}$ per cent on \$120,000,000 property value, \$3,000,000 per annum, we would have substantially a further deduction of \$3,000,000, or more accurately, \$2,700,000 from the net income of the Philadelphia company, in order to place it upon the same basis of comparison as we have made the analyses of costs of Milwaukee and Cleveland. If that \$2,700,000 is deducted from the net income, they would have had net earnings insufficient to pay the interest and rentals by about \$1,000,000 a year and instead of earning a dividend of 5 per cent on the capital stock, they would have incurred a deficit of about 4 per cent on the capital stock.

Now, it may be objected that the valuation of \$120,000,000 is a purely gratuitous offering on my part. But that was placed at a minimum figure for the purpose of minimizing the computations to be made from depreciation.

Now, if the property be valued, we will say, at \$152,000,000, which is considerably in excess of the net par value of all the securities outstanding, including the stock and bonds of the Philadelphia Rapid Transit Co., that is an amount equivalent to $4\frac{1}{2}$ times the gross earnings, then the allowance for depreciation becomes \$3,800,000,

instead of \$3,000,000. The deficit is more largely increased and the rate of return on the \$152,000,000 becomes 5 per cent instead of the former 7 per cent return on \$120,000,000. These returns have been computed on the basis of maintenance expenditures of 14½ per cent for the year 1918. Cleveland expended 20 per cent; and Milwaukee expended nearly 17 per cent for maintenance; and we underexpended.

If Philadelphia current-maintenance expenses were increased by, roughly, 5 per cent, there would have been an increase in operating expenses of about one and a half million dollars or some figure comparable with what can properly be saved by our rerouting and the elimination of duplicate service and things like that in the operation of the Philadelphia railway.

Now, it is interesting to note that. I do not believe that there is anyone that feels that a 5-cent cash fare is adequate for the operation of the Philadelphia street-railway system, if measured from the standards with which the cost of service is usually approached. The actual receipts were 5.6 cents per revenue passenger. If there be added to the cost of service the minimum amount of depreciation, namely, \$3,000,000, or \$2,700,000 rather, and the amount required to pay the dividend upon the capital stock of the Philadelphia Rapid Transit Co., all of which has been paid in, evidently, the cost per passenger, instead of being 5.6 cents, goes up to 6.25 cents per revenue passenger. And if the maintenance expenses were further increased by an additional 5 per cent of the operating revenue, the cost per passenger would go up to 6.55 cents per revenue passenger, thus obtaining figures with which we are generally familiar in the study of electric-railway costs in 1918 conditions.

That is all my direct testimony, Mr. Warren.

Commissioner BEALL. Mr. Mortimer, can you tell us anything about the distribution of population in Philadelphia, compared to certain other cities? Is it not a little more favorable for the loading of street-railway cars?

Mr. MORTIMER. Well, it is generally recognized that Philadelphia has a peculiar distribution of population. I first heard about that in 1907, when it was said that all the people who worked down town lived outside and all the people who lived down town worked outside; so that it resulted in rather favorable conditions from a traffic standpoint. It gave loaded cars both ways. That is evidently still the condition. Philadelphia's remarkable industrial development in the last four or five years—people who have seen the service and watched it carefully say that the rush-hour cars are loaded both ways; in other words, the amount of empty-car mileage which has to be made is at a minimum, due to the peculiar relative distribution of population and industries.

The CHAIRMAN. The point of your statement is that even under a cost-of-service plan you have to maintain a proper depreciation fund.

Mr. MORTIMER. That is my view—that that is necessary.

The CHAIRMAN. And that if Philadelphia had maintained the proper depreciation fund they would not be able to charge a 5-cent fare. Is that it?

Mr. MORTIMER. And their operating expenses were the same as they are now, yes; and assuming that the values would fall within the range that I have indicated on appraisal.

The CHAIRMAN. In spite of that assumption, however, the Philadelphia plant is well maintained and they are paying dividends upon the stock and they are operating at a 5-cent charge, and they have announced that on the 1st of January they will cut out the pay transfer; so is not that an example of where facts seem to be a little more decisive than figures?

Mr. MORTIMER. It is well known that it is possible to pay dividends even though they are not earned.

The CHAIRMAN. Certainly.

Mr. MORTIMER. Yes.

The CHAIRMAN. That is all.

Commissioner SWEET. Is the riding greater in Philadelphia and Cleveland than it is in Milwaukee?

Mr. MORTIMER. Yes; it shows up larger.

Commissioner SWEET. It shows on this first page, does it not?

Mr. MORTIMER. Yes; the so-called riding habit—riders per capita of population—is 316 in Philadelphia, 337 in Cleveland, and 268 in Milwaukee.

Commissioner MAHON. Is it not true that the denser the population the greater is the riding habit?

Mr. MORTIMER. That is the universal experience.

Commissioner SWEET. Is it not possible that there is added to that the element of somewhat greater good will on the part of the general public?

Mr. MORTIMER. I think probably that has some influence upon the general attitude of the public and their inclination to ride, but it is a factor that is exceedingly difficult to measure.

Commissioner SWEET. In your statement you referred to certain things that were done in Cleveland, such as the keeping of the track clear, etc. That would result in material increase in net profit in Milwaukee if you had the same thing there?

Mr. MORTIMER. Yes.

Commissioner SWEET. Is that the result of a better understanding and feeling generally on the part of the population toward the street-railway company in Cleveland?

Mr. MORTIMER. The viewpoint is different. The people in Cleveland have been led to believe that they are getting the best street-railway service in the United States at its cost. That has been taught to them ever since the year 1909. It is part of the gospel of every city administration, be they one party or another party. Anything that in any way tends to increase costs which, in turn, might result in an increase in a rate of fare is frowned upon by municipal officials and by the public generally. On the other hand, in Milwaukee the city officials and certain politicians have preferred to say that the Milwaukee company was a company that was making exorbitant profits, that it had anywhere from \$5,000,000 to \$7,000,000 of money earned out of the business that belonged to the public and that it never did need any increase in fare to pay any increase in wages or other increases in operating expenses. In other words, we have had opposition from the city administration because of the difference in the scheme under which the two things operate. And last, but not least, the company suffers from participation in politics in the early days, prior to its consolidation. Controlling one group of railways they were prominent in the Democratic councils of the State and

another group of railways were prominent in the Republican councils of the State, with the result that the public came to believe that whoever was elected—it did not make any difference because the street railway had them both.

And those things are extremely difficult to live down. There was a great cry sent up at the time the 1900 franchise was granted. That was a franchise which provided for a 5-cent cash fare and commutation tickets, 6 for a quarter, or 30 for a dollar for 34 years. The city undertook to cause a reduction in that rate of fare asking for a 3-cent fare in 1906, and the company was one of the first of the companies, if not the first, in fact, to contest the right of regulation by the railroad commission, to modify a franchise rate of fare; and that was carried up to the Supreme Court of the United States and it went through the railroad commission and through the Supreme Court of Wisconsin under favorable conditions—that is, to the public. It was decided on a point which was comparatively limited; in other words, the court practically reversed itself and held that the public service commission has the right to regulate the fare. There is a law which goes into effect on January 1, 1920, taking away the so-called determined franchise and substituting undetermined permits in lieu thereof, and I suppose even after the 1900 franchise is converted into an indeterminate permit there will still be talk about the 1900 franchise steal.

Commissioner SWEET. In Milwaukee the old-time conditions prevail rather than the new cooperative ideas?

Mr. MORTIMER. Yes; there is absolutely no cooperation between the mayor, the common council, or the city attorney's office with the management of the street railway or with the railroad commission.

Commissioner SWEET. Now, there is a good deal of psychology in this matter of car riding, is there not? And the acceptance by the public of certain inconveniences, etc., without complaint—that is psychological largely, is it not?

Mr. MORTIMER. Yes; I think that fatigue and all the mental reactions that occur in waiting for a street-car, in boarding a crowded car, or getting into a cold one are very important. They are mental reactions—

Commissioner SWEET. The somewhat more modern and better condition from the psychological standpoint in Cleveland is ascribed to the work done by Tom Johnson and the education of the people?

Mr. MORTIMER. I think the psychology there is primarily the psychology of fear—fear when the rate of fare was 3 cents that they were going to lose the 3-cent fare and that it would be increased. It was only because of those circumstances that they were able to put through the skip stop. Cleveland has the most general application, and was the first company to have a general application, of the skip-stop system. And it is rather interesting to note that at first it was not believed by the management that this scheduled speed could be maintained. No other street railway was operating at that speed, but the street-railway commissioner said, "Put it in and if they can not run it"—so the story goes—"fire them." And the service was put in. Probably some adjustments were required, but Cleveland is maintaining the highest schedule speed of any surface railroad in the country to-day.

Commissioner SWEET. And there was what we call the Tom Johnson campaign, was there not, in street railroads?

Mr. MORTIMER. Yes; that ran over a long period of time.

Commissioner SWEET. That was a campaign of education, was it not?

Mr. MORTIMER. It was education to the low rate of fare.

Commissioner SWEET. Yes; but it was an effort on the part of Tom Johnson and Mayor Baker—or City Attorney Baker, as he was then—and others to bring the people into connection, intellectual connection, with the whole subject. In other words, to have just as complete knowledge of the subject spread abroad among the people as possible. Was not that it?

Mr. MORTIMER. Well, I do not know whether those were the motives or not. I did not live in Cleveland. Looking back at it over a period of years and reading all the reports on it, it appears to have been an important political issue, and the—

Commissioner SWEET. Well, we have had a number of Cleveland people here and especially Secretary Baker, and that is his explanation of it, largely.

Mr. MORTIMER. Yes; I would not dispute that.

Commissioner SWEET. Now, what I wanted to know was whether, in the reorganization and rehabilitation period that must be ahead of us, you do not think that this work of education by bringing the public to a different frame of mind from the frame of mind you have in Milwaukee, so that politicians can not use that as a football to get into office—don't you think that, for the good of the public, the companies, and the employees, this campaign of education has got to be conducted to greater or less extent, and the better or more complete knowledge on the part of the public of what the companies are, what they have, what they are doing, what they propose to do—that the whole subject has got to be approached from the standpoint of more complete knowledge by a great deal than has heretofore existed?

Mr. MORTIMER. Well, Mr. Commissioner, I would say that that was generally true, but I want to call your attention to certain exceptions that you run across in almost any undertaking. You will, in almost any situation, encounter some irrepressible spirit who declines to accept official, certified facts as facts. He prefers to compute his own facts, to justify his own conclusions; and if that man is desirous of continuing in office or of attaining a higher office, there is no amount of publication of facts or publicity that will shut him up. He will have certain listeners, because he takes the position that he is trying to protect the rank and file of poor people against the depredations of vicious corporations and aggregation of capital; and he will necessarily have certain followers; and even a small minority is sufficient to encourage him. One or two or three individuals of that kind may raise a great deal of difficulty for any public utility, and most of the difficulties come from that particular curse.

Commissioner SWEET. What you were saying bears upon the difficulty of bringing about the condition that I described. But you do not question the desirability of it?

Mr. MORTIMER. Not at all. That is highly desirable. But I want to say this, Mr. Commissioner, that there are probably very few

people in Milwaukee who can read English but who know the approximate value of the railway-utility property of our company, what rate of return is being earned on it, and all that sort of thing; because we have never hesitated to publish that information. We have put out a great deal of publicity material, through paid advertising, and for the size of the town have probably spent more money than most other cities; but we have enough good will in the community to be able to go out and sell \$3,600,000 of 7 per cent 5-year notes at par in a period of 9 months over the counter; so that there are lots of people that have confidence in us, because practically all of this money came from the very small investor—the investor who is not ordinarily reached by the investment banker; we were not in any way competing in the field of the investment banker. So that we have a lot of good will. But, as you find in most communities, there are certain irrepressible spirits—

Mr. WARREN. There is no doubt that if the same amount of co-operation could be produced in other cities as has been produced in Cleveland, it would be possible to give service at much less cost than otherwise it would come to?

Mr. MORTIMER. There is little doubt about that.

Mr. WARREN. And so far as the matter of depreciation—setting up depreciation in Cleveland—is concerned, there is nothing in the Cleveland plan to prevent the inclusion of a proper depreciation reserve if the ordinance or contract had been drawn to provide that?

Mr. MORTIMER. That is correct.

Commissioner GADSDEN. As a matter of fact, is it not true that Mr. Nash, in his recommendations, specifically includes depreciation reserves in his treatise on the service-at-cost plan as one of the suggestions for improvements of the Cleveland plan?

Mr. MORTIMER. I am not entirely familiar with Mr. Nash's recommendations, but it was entirely proper that he should include it.

Commissioner SWEET. Is your company unionized?

Mr. MORTIMER. Yes; unionized in the form of an industrial union, as distinguished from—

Commissioner SWEET. Is it the Amalgamated?

Mr. MORTIMER. No. We have no local of the Amalgamated Association in Milwaukee. The company has a general labor contract with the Employees' Mutual Benefit Association, which gives to that association all the powers of collective bargaining that would pertain to any contract with the Amalgamated Association, and while it presumably is designed to avoid a strike, it has not been effective in preventing a strike. We had a strike of the employees on January 1 of this year.

The union embraces all crafts and all the employees of the Milwaukee Electric Railway & Light Co. and its associate companies, such as the Wisconsin Gas & Electric Co., the Wells Power Co., operating in the southeastern section of Wisconsin. The parent chapter has also issued charters to other companies in which the same interests are financially interested. So that whatever advantage that interstate support may be, they have this support.

Our view of that angle of the business is relatively simple.

In the administration of a public utility there never ought to be any opportunity for any substantial dispute between the employer and the employee affecting hours, wages, or working conditions.

That ought to be the case where State regulation administers rates and service and controls security issues, or under a cost-of-service plan.

State regulation is only another expression for cost of service, our so-called cost-of-service plan being automatic rate regulation.

The employee is, of course, entitled to adequate compensation; and that can be measured from a number of different viewpoints. I think that most public-utility operators, if they could see their way of collecting the revenues from the public, would be favorable toward very closely approximating the standards which have been submitted to this commission by the representatives of the Amalgamated Association. Fundamentally, in public utilities, the question of wages, hours, and working conditions is a public problem. The way the law stands in Wisconsin at the present time it ought to be practically impossible to have a strike if both parties will follow the procedure that is laid down.

As a part of the governor's reconstruction plan, he created the board of conciliation, consisting of three men, selected in the usual way—one representing the employers, one representing the employees, and one representing the public.

Commissioner SWEET. How was that last one selected or appointed?

Mr. MORTIMER. These men are nominated by the governor and confirmed by the senate; but they are chosen from these respective groups.

Mr. WARREN. It is a permanent board, is it?

Mr. MORTIMER. Yes; it is a permanent board.

The Chairman. Is it on a salary?

Mr. MORTIMER. They are presumed to get a salary—not a salary, but a meager per diem rate of \$5. The administration this year was very economical.

With respect to ordinary industrial disputes, other than public service corporations, the board of conciliation may assume jurisdiction upon the request of either party. That takes the place of the former arbitration provision under the Wisconsin industrial commission law, which permitted arbitration by the industrial commission only with the consent of both parties.

With respect to public-service corporations, however, the law requires that the board of conciliation take jurisdiction, and then it shall make its findings and immediately certify them to the railroad commission. The railroad commission reviews such findings, and modifies or confirms them and makes its determination. If it finds that the public-service corporation can pay the increased wages and earn a reasonable return, then it shall order such wages effective, and that order is binding upon the public-service corporation.

If it finds that the public-service corporation is unable to pay these increased wages without causing it to earn less than a reasonable return, then the railroad commission shall, by order, fix such rates or charges as shall permit the corporation to earn the increased wages and produce a reasonable return.

That is intended to avoid industrial disputes among public-service corporations.

Commissioner SWEET. Yet you say you had a strike recently.

Mr. MORTIMER. Yes. This law was the outgrowth of that strike.

Commissioner SWEET. Oh! This has been adopted since? As far as you are concerned, speaking for the company that you represent, it is a matter of comparative indifference, I take it, from what you say, as to what the wages may be. You are a sort of go-between; you collect the fares from the general public and turn over a certain portion to the employees?

Mr. MORTIMER. We have another important function, of course, and that is to see that labor——

Commissioner SWEET. I do not mean to say that that is everything you have to do.

Mr. MORTIMER. I probably interrupted you.

Commissioner SWEET. That is one thing you have to do?

Mr. MORTIMER. Yes.

Commissioner SWEET. What I had in mind to convey was that, in a sense, you are the representatives of the public, from the standpoint that you take the money that they contribute to you, and out of that you pay the wages of your employees?

Mr. MORTIMER. Yes. We are a joint agent, in other words.

Commissioner SWEET. If more money were contributed by the public, you would not object to turning over more money to the employees as wages?

Commissioner MAHON. I thought you were going to say that he would not object to taking the extra money.

Commissioner SWEET. I am assuming now that Mr. Mortimer is an honest man and would very gladly turn over all that the public expected him to turn over to the employees.

Now, Mr. Mortimer, the street-car has often been called the poor man's carriage, has it not?

Mr. MORTIMER. Correct.

Commissioner SWEET. Of course, I suppose you have no means of knowing the proportions of the different kinds of people who ride on the street-cars, but a great many of them are people of very moderate means?

Mr. MORTIMER. That is correct.

Commissioner SWEET. Many of them laboring people?

Mr. MORTIMER. That is correct.

Commissioner SWEET. So that a very large increase in fare in order to increase wages might possibly be a burden upon some of those people whose standard of living is not any too high now? Isn't that true?

Mr. MORTIMER. I think that burden would be psychological rather than actual.

Commissioner SWEET. Well, take a man with a wife and three children, living at a distance, we will say, from school, so that some of the children, at least, have to pay railroad fare to go to school, and the man, perhaps, to go to his work, and the wife to go to the center of the city for shopping, and so forth. Would not that be quite a burden?

Mr. MORTIMER. The per capita expenditures are relatively small for traveling of that kind. It is a very small proportion of the total workingman's family budget, and the increase in an absolute amount, we will say, of 100 per cent, would not affect seriously the net earning power of the workman.

Commissioner SWEET. Do you agree with the item of \$60 put in the budget furnished us here yesterday by Mr. Lauck for street-railroad fares? I think it was \$60, was it not?

Mr. MORTIMER. Yes. Well, that would be \$12 per capita; and that falls within the range of receipts in a city of 400,000 or 500,000 population. It would be less than that ordinarily, in a city of smaller population.

Commissioner SWEET. Are there not a great many street-car riders to whom that would be something of a burden?

Mr. MORTIMER. Well, I think burdens of that kind have an element of psychology in them. If the service were improved, by any means—if they could get a faster, swifter ride, and less probability of being required to stand, there would be less objection to it. We are dealing with a rather intangible factor, and it is hard to express a measured opinion on it.

Commissioner SWEET. That is all.

Commissioner MAHON. Mr. Mortimer, the railroads of Milwaukee are under State regulation—the Wisconsin railroads?

Mr. MORTIMER. That is correct.

Commissioner MAHON. I know they changed the laws very often up there.

Mr. MORTIMER. Yes; the railroad commission has jurisdiction over all rates and service of all utilities in the State. The former franchise contracts are subject to review by the commission.

Commissioner MAHON. And they can fix the rate of fare in any municipality?

Mr. MORTIMER. The railroad administration can; yes.

(Witness excused.)

The CHAIRMAN. Have you anybody else to present to us, Mr. Warren?

Mr. WARREN. I have nobody else.

The CHAIRMAN. Mr. Ogburn, have you anything to present?

Mr. WARREN. I have some exhibits, Mr. Chairman, that I wanted to put in. I am sorry that Mr. Wehle is not here.

The CHAIRMAN. Can you put those exhibits in after the witnesses have finished?

Mr. WARREN. Yes; I can. I did not know there were any more witnesses.

The CHAIRMAN. Have you another witness, Mr. Ogburn?

Mr. OGBURN. Mr. Joyce, testifying on Monday, was asked for certain data by one or two of the members of the commission. He did not, at that time, have the data, but he has gone to Philadelphia and brought it, and would like to present it to you. He tells me that he can do it in about 10 or 15 minutes.

The CHAIRMAN. We shall be glad to hear you, Mr. Joyce.

ADDITIONAL STATEMENT OF MR. C. J. JOYCE.

Mr. JOYCE. I was examined regarding the hours of labor and working hours of motormen and conductors, and the ability of the Philadelphia Rapid Transit Co. to continue the 5-cent fare despite the increase in wages paid August 7.

We have prepared, and I have had Mr. Mitten submit as an official document from him, a letter addressed to the commission

upon those two subjects, and I have brought with me also other data that seems pertinent to my testimony of last Monday.

This letter is addressed to Mr. Elmquist, and with your permission I will read it:

Agreeable to Mr. Joyce's promise to supply additional information relative to working hours of motormen and conductors, and also our ability to continue the 5-cent fare, the following data is submitted:

Working hours of motormen and conductors. Philadelphia's surface lines have no three-piece runs.

The system comprises 2,473 regular runs, of which 1,323, equaling 53.5 per cent, are straight runs, and 1,150, equaling 46.5 per cent, are two-piece runs.

The average over-all time per run is 11 hours, 33 minutes.

The average pay time is 9 hours, 30 minutes.

The average lost time is 2 hours, 3 minutes.

The pay time is divided as follows:

Hours per day.	Number of runs.	Percentage.
8-9	611	24.7
9-10	1,285	51.9
10-11	530	21.4
11-12	47	2.0
19.5	2,473	100.0

¹ Average.

Ninety-seven per cent of all car-operating time is worked as a part of regular runs, leaving only 3 per cent to be assigned as trippers. The average pay time on regular runs is 9.5 hours, requiring 307 days' work per annum to earn the system average for motormen and conductors of \$1,690 per year.

According to the figures taken from Wednesday's testimony for Detroit in 1917, therein stated to be slightly improved for 1919, the comparison of over-all time at Detroit and Philadelphia is as follows, the average pay time of both cities being 9.5 hours:

Completed within—	Detroit.		Philadelphia.	
	Number of runs.	Per cent.	Number of runs.	Per cent.
13 hours.....	865	62.5	1,893	73.1
14 hours.....	195	14.2	513	20.7
15 hours.....	147	10.6	135	5.5
16 hours.....	77	5.7	17	.7
17 hours.....	51	3.7		
18 hours.....	46	3.3		
19 hours.....	1			
Total.....	1,382	100.0	2,473	100.0

Continuance of the 5-cent fare: The wage increase of August 7, approximating \$2,500,000 per annum, was in full effect during the entire month of September. Operating results for September are significant, showing as they do that the proportionate amount of all yearly charges and 5 per cent dividend has been earned, with a continued 5-cent fare—operation ratio (excluding taxes) 61.55 per cent.

Cooperative effort, with a force of well-trained employees, of which 85 per cent receive the maximum rate and 55 per cent are more than 5 years in the service, is here found adequate to overcome obstacles seemingly insurmountable elsewhere.

T. E. MITTEN, *President.*

I wish to present a table of earnings and wage scale, comparing 1910 with 1919, for the cities of Philadelphia, Detroit, and Cleveland,

showing the trainmen in Philadelphia, 1910, 7,424; in 1919, 6,264; a decrease of 15.6 per cent.

In Detroit, trainmen, 1910, 1,883; 1919, 2,900; an increase of 54 per cent.

Cleveland, trainmen, 1910, 2,083; 1919, 2,745; an increase of 3.7 per cent.

The average rate per hour paid trainmen in Philadelphia in 1910 was 23 cents; in 1919, 57.65 cents; an increase of 151 per cent.

Detroit, 1910, 27 cents; 1919, 57.5 cents; an increase of 113 per cent.

Cleveland, 1910, 28 cents; 1919, 59 cents; an increase of 110.71 per cent.

Gross earnings per trainman: Philadelphia, 1910, \$2,590; 1919, \$5,508; an increase of 112.6 per cent. Detroit, 1910, \$3,311; 1919, \$5,345; an increase of 61.4 per cent. Cleveland: 1910, \$2,867; 1919, \$5,442; an increase of 90 per cent.

Average pay per day (this is for trainmen): Philadelphia, 1919, \$5.51; Detroit, 1919, \$5.10; Cleveland, 1919, \$5.

Average rate of fares: Philadelphia, 1910, 4.13 cents; 1919, 3.98 cents; a decrease of 3.6 per cent; Detroit, 1910, 4.09 cents; 1919, 5 cents; an increase of 22.3 per cent. Cleveland, 1910, 2.63 cents; 1919, 3.91 cents; an increase of 48.7 per cent.

Passengers carried per trainman: Philadelphia, 1910, 62,711; 1919, 138,383; an increase of 120.7 per cent. Detroit, 1910, 82,114; 1919, 106,896; an increase of 30.1 per cent; Cleveland, 1910, 109,020; 1919, 139,197; an increase of 27.6 per cent.

The Philadelphia figures are actual; the Detroit and Cleveland figures are derived from the best sources available.

I have here a report made to the real-estate board of the city of Philadelphia by a specially appointed expert on valuations of real estate, and the report of the board based upon the report of their experts, confirming what I said to the commission on Monday, that in West Philadelphia real-estate assessments have doubled since the construction of the Market Street elevated, showing an increase of \$113,000,000.

The figure I gave on Monday was \$130,000,000, and it was my recollection that this figure actually was in the report; but I did not mention that property east of the Schuylkill, which is served by the subway, increased in the same period \$38,000,000, bringing a total increase in property in West Philadelphia and on Market Street, east of the subway, to \$150,000,000.

Commissioner SWEET. You do not claim all that increase is due to the railway, do you?

Mr. JOYCE. Not all of it; no, sir. It was offered by the real-estate board as an argument for hurrying the work on the Frankford elevated, which has not yet been placed in operation.

I was asked the number of transfer passengers received by the elevated, and transferring from the elevated, and my answer to that is as follows:

Transfer passengers received by the elevated for the first 6 months of 1919, \$7,011,429.

A transfer is permitted from the elevated to the subway-surface cars, which we have no means of estimating or counting. People go freely from the platforms of the elevated to the platforms of the surface lines underground, and we do not count.

Exchange tickets are not issued by the elevated and are received by it only at stations east of Fifteenth Street; that is, east of the city hall, practically, in order to carry passengers to Thirteenth Street, where they change to the subway—where they are supposed to change to the subway surface—but we have no control over them, so they may continue on the subway elevated, out to the end of the elevated.

This transfer is without the use of tickets, and it is not included in the above transfer figures; 2,197,477 exchanges received.

Commissioner MAHON. How many miles of elevated are there in Philadelphia?

Mr. JOYCE. Roughly, 5 miles, from the Schuylkill River west.

In my testimony the other day I gave a figure different from that, but it was the single-track mileage that I had given.

Commissioner MAHON. How many miles of underground?

Mr. JOYCE. About 3 miles.

Commissioner BEALL. In your statement that you just read there seems to be a very marked falling off in the number of men employed between 1910 and 1919, despite the increase in earnings, etc. What was the cause for that?

Mr. JOYCE. That was due to the Mitten management's taking advantage of unified operation in Philadelphia, which, prior to the incoming of the Mitten management, had not been fully taken advantage of.

Commissioner BEALL. What do you mean by unified management?

Mr. JOYCE. For example, the number of routes on the system when Mr. Mitten came to Philadelphia was 92. He rerouted the cars, and now we have 72 routes on the system.

Commissioner BEALL. Were there not other practical reasons that contributed to that? For instance, in 1910, did you not have a comparatively small number of large double-truck cars?

Mr. JOYCE. We had an increase in the seating capacity of the car. I do not know that the number of double-truck cars was materially changed, but there was a large increase in the seating capacity, due to an arrangement of the seats.

Commissioner BEALL. As a matter of fact, is not that decrease in your trainmen due more to cars with a larger capacity than it is to any improvement in the operations?

Mr. JOYCE. The improvement is assigned principally to the routing of the cars.

Commissioner BEALL. Well, how many double-truck cars did you have in 1910, approximately?

Mr. JOYCE. I can not answer; I have not the information.

Commissioner BEALL. Can you get those figures for us?

Mr. JOYCE. Certainly.

Commissioner BEALL. I would like to know how many cars of that sort you had in 1910?

Mr. JOYCE. We would be glad to furnish that.

Commissioner BEALL. With the seating capacity, and the same thing to-day.

Mr. JOYCE. We would be glad to supply that.

I was asked the longest 5-cent ride in Philadelphia, and my answer is 27.32 miles, round trip. That is the longest 5-cent route, not the longest 5-cent ride. The longest 5-cent ride is 14.2 miles.

Commissioner BEALL. Did you say what the average ride was?

Mr. JOYCE. That is the average that a man can take——

Commissioner BEALL. But have you the actual?

Mr. JOYCE. No; I have not.

Commissioner BEALL. Are not your rides in Philadelphia shorter than they are in most cities of a similar population? Is not your distribution very much better than others?

Mr. JOYCE. We believe we get a great many short riders, but how to measure the number——

Commissioner BEALL. I appreciate you can not do it actually, in figures; but as a street-railroad man, am I correct or incorrect in my understanding that Philadelphia has a very much more favorable distribution of population from a street-railway standpoint than the other cities of comparatively the same size?

Mr. JOYCE. Well, I can best answer you by giving you some statistics that I have available which perhaps would at least bear upon that subject. The passengers per mile of track—would that be indicative?

Commissioner BEALL. I do not know that it would, necessarily.

Mr. JOYCE. Density of population. Would that be?

Commissioner BEALL. Not necessarily. It is how they are distributed and the way they ride. For instance, we understand that you have very few empty cars even in the rush hours, and that you haul the people both ways. Philadelphia is not like New York, for instance. Those people do not live in the north and all go to the south to do business. Your factories and your centers of employment are scattered all over the city and people live around and you have a constant business, as I understand, to and fro, which is different from most of our cities, where the traffic all goes one way at stated hours of the day.

Mr. JOYCE. I hardly know how to give you an answer on that that would——

Commissioner BEALL. I know it has impressed me that way from just seeing the city, and I am trying to get information whether that is correct or not.

Mr. JOYCE. Yes. Well, taking Philadelphia as it lies, we have had traffic counters on the streets, and we have observed that a great many of the workers live within walking distance of their work. Philadelphia has a large textile-mill activity, and the people live pretty close to those textile mills.

Commissioner BEALL. Well, from your knowledge of Philadelphia and the property, is it or is it not your opinion that compared with other large cities of this country you have a more favorable distribution of population—from your viewpoint as a street-railway man?

Mr. JOYCE. I am familiar with Cleveland, Chicago——

Commissioner BEALL. Well, Chicago is more in your class. Cleveland is a very much smaller city.

Mr. JOYCE. Boston, New York, Baltimore. I would say that Philadelphia would compare reasonably with all of those cities.

Commissioner BEALL. You do not think your population is any better distributed from a street-railway standpoint?

Mr. JOYCE. I would say not—than those cities. I specifically excepted Pittsburgh here the other day on the stand, because I am

pretty familiar with Pittsburgh, and I would not compare Philadelphia with Pittsburgh. But the other cities I have mentioned are fairly comparable. The density of population per square mile is: New York, 44,000; Brooklyn, 21,000; Boston, 12,000; Chicago, 12,000; Philadelphia, 9,500.

The population per mile of track is: New York, 5,585; Brooklyn, 3,191; Boston, 2,545; Chicago, 3,814; Philadelphia, 2,940.

We had some figures made to show the average earnings of our extra men per week, which I—

Commissioner BEALL. What is that, trippers?

Mr. JOYCE. Extra men, whether they are operating trippers or regular runs in the off-time. The average obtained from taking a typical barn and a certain number of men was \$26.35 a week. That is taken for the last two weeks in August.

Mr. WARREN. What was that, the average?

Mr. JOYCE. The average; yes, sir.

Commissioner MAHON. What guaranty do your extra men have? What weekly guaranty?

Mr. JOYCE. I am not able to answer that. I do not know. In fact, I do not know if there is any guaranty.

I have a memorandum here regarding the letters received by the Rapid Transit Co. from the War Labor Board in the approval of the Philadelphia plan, and if there is any doubt of the authenticity of those letters, I have the original letters ready to submit them.

That is all the information I have ready now.

The CHAIRMAN. Is not the Philadelphia company maintaining a depreciation fund?

Mr. JOYCE. It has been its policy since Mr. Mitten came to Philadelphia to apportion 15 per cent of the gross revenue for maintenance and depreciation, and the balances in that fund are the balances of that appropriation.

The CHAIRMAN. Then you would include depreciation and maintenance in one account?

Mr. JOYCE. Yes.

The CHAIRMAN. How much of that 15 per cent is actually used for maintenance?

Mr. JOYCE. I can not answer that. I am not sufficiently familiar with the operation of that fund to be able to give you detailed data on that, but I shall be glad to supply that data.

The CHAIRMAN. What surplus have you in that fund now?

Mr. JOYCE. I believe something over a million dollars. The operation of a depreciation fund, as I explained here on Monday on the stand, is a matter that you can hardly make comparison on, unless you know exactly under what rules the depreciation fund is kept, and how the renewals are charged, whether any renewals are charged against operations.

For example—I think I gave this example on Monday—that if you keep a depreciation fund, and you have an extraordinary renewal you would charge a portion of that renewal or perhaps all of it against the depreciation fund. You would charge little or none of it to current operations. You would that month, or that year, make a certain appropriation for depreciation. If you did not have a fund, the appropriation for depreciation would be taken up by a

charge against income for the renewal. So that—take a period of 20 years—the charges for depreciation found on the books of a company that kept such a fund would be found against operating expenses on the books of a company that did not keep such a fund; so that to compare the operating expenses of the two companies is delusive.

The CHAIRMAN. It has been testified here that, if Philadelphia maintained a proper depreciation account, its cost per passenger would be 6.1 cents. Was not that it, Mr. Mortimer?

Mr. MORTIMER. That is correct, to produce the present dividend.

The CHAIRMAN. What have you to say as to that?

Mr. JOYCE. My answer to the last question practically answers that question, that to determine to what extent operating expenses would be affected by a charge for depreciation in 1918, you would have to determine to what extent operating expenses would be saved by charging the renewals made in 1918 against a renewal fund that had been created in prior years, so that to make that kind of a comparison is a pure fallacy.

Mr. WARREN. Mr. Joyce, do I understand you that it is Mr. Mitten's opinion that 15 per cent is enough of gross to take care of both maintenance and depreciation?

Mr. JOYCE. That was at that time.

Mr. WARREN. And is still?

Mr. JOYCE. I am not sure about what his opinion is to-day, but I would assume that he has not changed it.

Mr. WARREN. That is what the company is charging to-day?

Mr. JOYCE. Yes.

Mr. WARREN. You have not any of the figures for September, I suppose, showing the gross and operating expense?

Mr. JOYCE. I have; yes, sir—

Mr. WARREN. Well, let me ask you another question which will save you, perhaps, looking for it. Did the gross increase sufficiently to take up the increased wages for September?

Mr. JOYCE. Yes. I have the figures here if you will wait a moment. Comparing 1919 with 1918, the month of September, 1919, gross earnings were \$3,070,000; 1918, \$2,728,000.

Mr. WARREN. Can you compare them for August of this year?

Mr. JOYCE. I have not the August figures here. The surplus in 1919 is \$185,000 compared with \$237,621 in 1918, and our surplus required to pay our 5 per cent dividend, is \$125,000 per month.

Commissioner BEALL. Mr. Joyce, have you any figures showing what other companies are paying—that is, a large number of them—for maintenance and depreciation, what the proportion is to gross?

Mr. JOYCE. I have not; no, sir.

Commissioner BEALL. Are you familiar with what the large engineering firms of the country have recommended in that respect—firms like Stone & Webster, who are possibly the largest?

Mr. JOYCE. I am not.

Commissioner BEALL. I believe they have stated at numerous times that it should be at least 20 per cent at the very minimum, and some companies charge more than that. You have not any knowledge on that?

Mr. JOYCE. No.

Commissioner BEALL. You have not looked that up?

Mr. JOYCE. I have not any knowledge upon it.

Mr. WARREN. Did you hear Mr. Beeler's testimony?

Mr. JOYCE. I did not.

Mr. WARREN. You are not familiar with his estimate of 8 per cent for depreciation and 15 to 20 per cent for maintenance?

Mr. JOYCE. I am not; no, sir.

The CHAIRMAN. Who is your next witness?

Mr. OGBURN. With the consent of the commission and with the permission of the next witness for just a moment, there is one thing I would like to bring to the attention of the commission at this point. I think it will only take one or two minutes, but I consider it desirable now, since you are on the subject of Philadelphia.

This commission has received a communication from the United Business Men's Association of Philadelphia. Accompanying that communication have been a number of requests urging that it be brought to your attention, and in view of the nature of the communication and the number of requests which have accompanied it, I think it worth while to interrupt this proceeding, if the other witness is agreeable, to call your attention to certain statements in this communication. The United Business Men's Association of Philadelphia is composed approximately of 25,000 members, according to their own statement. It is an organization whose actions are always heard on civic questions and whose views have been largely indorsed by the press. Among the many problems they have studied is that of the transit situation, particularly as applied to the city of Philadelphia.

There was pending last year a most important lease between the present operators of the electric lines of Philadelphia and the city in regard to some high-speed lines that were being built and to be built. This association gave considerable study and analysis of the situation and presented their views before the Public Service Commission of Pennsylvania, which latter body rendered a unanimous decision favorable to the views of the United Business Men's Association, according to their own statement.

They have a special committee on transportation, which is composed of lawyers, engineers, and business men.

This communication is as follows:

To the Federal Electric Railways Commission.

GENTLEMEN: The United Business Men's Association of Philadelphia, which is composed of business and professional men from all parts of Philadelphia and not financially interested in street railways in any manner, but desirous of presenting before your honorable body certain facts for the protection of the public in the matter of street railways, begs to present to you the following facts:

Various witnesses representing street railways have appeared before you and testified to what is called the enormous operating expense at the present time of the street railways. We are reliably informed that there is included in these statements of the cost of operation the rentals paid to underlying companies. These rentals, created years ago by leases executed by street railways to operating companies, in many cases represent little real value and are in nearly every case excessive and far beyond any contribution which these underlying companies are now contributing to the public service. The cry of higher fares is not so much to give the companies interest on actual capital invested and to pay for higher wages and cost of material as it is a cry for the perpetuation of these excessive rentals under the guise of increased expense of operation. We believe that before any rate of fare

should be fixed these rentals should be investigated and all excessive ones reduced and all watered stock absolutely eliminated. Both the Supreme Court of the United States and the supreme court of nearly every State and the public-service commissions of most of the States have emphatically declared that fares can not be collected from the public to pay excessive compensation for capital furnished or to pay dividends on watered stock.

A distinguished witness from one of our largest cities has already testified before your honorable body that in this city the car fares were raised 100 per cent, and the increase in revenue only 14 per cent. In Philadelphia the operating company in 1918 made \$12,000,000 net profit on operating a unified system on a 5-cent fare, carrying over 700,000,000 passengers; \$10,000,000 of this \$12,000,000 net profit were immediately paid to underlying companies, who contribute nothing but franchises obtained years ago and very little equipment to the service. The major portion of the cost of equipment, operation, and maintenance of this car system was contributed by the operation company, yet this company receives but two-twelfths of the net profit, while the dead companies who supply no new cars, no new rails, and pay no increased wages of any kind, receive ten-twelfths thereof. This is, in our opinion, the crux of the proposition. Correct the evils of the underlying companies and fares can then be adjusted on a basis that would be square to the public and remunerative to the operating company.

The injustice to the public arising from the present financial arrangements of the electric street railways of Philadelphia is shown in the following statements:

The average receipt per passenger for the past 22 years in Philadelphia has been approximately 4½ cents. In spite of its big earning power the street-railway system of Philadelphia has been unable to serve the public adequately owing to want of extensions and proper number of cars. The amount of rentals paid out to the underlying companies during the past 25 years has been great enough to pay 6 per cent on the money invested in the capital stock of said companies and in addition return to them the entire money invested by them. This money, in addition to returning to these companies their investment with interest at 6 per cent, would be enough to build a principal part of the proposed subway and elevated high-speed system at the cost provided for the same in 1913. One of these underlying companies receives as rental 22.9 per cent yearly on the money paid in, and in addition has had its original investment returned to it every two years. Another company receives 21.9 per cent yearly and has had its original capital returned to it every two years. Another, 9.5 per cent with the same result. Another receives 15 per cent on the capital paid in, and every three years in addition receives back its original investment. Another company receives its original investment back every four years, and in addition 6 per cent per annum on the original invested capital. This vicious game has been going on for over 35 years, and under the present leases it is to continue for 999 years less about 30 years.

We hereby request your honorable body to investigate this phase of this question which is of importance to the Government of the United States as well as to all inhabitants thereof. The question is both political, economical, and social. Its settlement on a just basis can not longer be evaded or postponed.

Respectfully submitted by the United Business Men's Association of Philadelphia.

EDW. A. NOPPEL,
President.

C. OSCAR BEASLEY,
Chairman, Special Committee on Transit and Council.

SIDNEY M. CARTER,
Chairman, Transportation Committee.

JOSEPH F. LEWIS,
Electrical Engineer for Committee.

Attest:

CHARLES H. VON FAGEN,
Secretary.

The CHAIRMAN. Mr. Ogburn, who is your next witness?

Mr. OGBURN. The next witness is to give some supplemental testimony, he also having testified at a prior hearing: Mr. Marion Jackson, who represents Mayor Key, of Atlanta.

Mr. Jackson is an advocate of municipal ownership and will supplement his prior testimony briefly in regard to that phase of the subject.

I might state here, in order that Mr. Jackson will know before he begins his testimony, that we are having certain comparative studies made in municipal ownership. The most recent example of municipal ownership of electric railways in this country is in Seattle; and at my request, Dr. Stephen J. Miller, who is the director of the school of business administration of the University of Washington, a man thoroughly qualified to make an impartial and scientific study, is making a comparative study of the operation of the Seattle lines under the city operation since April 1, as compared with private operation prior to that time; and we ought to have the results of that study before us this week or anyway next week.

Commissioner GADSDEN. What is his name?

Mr. OGBURN. Dr. Miller, who is the director of the school of business administration of the University of Washington.

Furthermore, Mr. Bell, who is the minister of the department of railways and canals of Canada, together with the Dominion statistician, Mr. R. H. Coates, promises to supply us with a comparative study of the operation of the municipal railways in Canada as compared with private operation.

The CHAIRMAN. Did you not also have a telegram from Denver which you wished to read into the record?

Mr. OGBURN. Yes. This telegram, as it perhaps needs attention now, had best be brought to your notice. This is signed by W. H. Dickson, chairman of the campaign committee on the service-at-cost proposed ordinance, addressed to the Federal Electric Railways Commission:

Learning that your commission may adjourn on the 3d or 4th of this month, and in view of important letter relating to the tramway problem in Denver mailed you on September 30th by the tramway adjustment committee of fifty-five appointed by the mayor of Denver, and in view of the importance of the matter, I am telegraphing your commission herewith verbatim the contents of our letter:

"DEAR SIRS: Your honorable body, whose appointment and activities in investigating the electric railways have been reported to limited extent in the daily press, may not be aware that the city of Denver appointed a committee of fifty-five representatives—business, professional, and labor men—to study, investigate, and recommend local solution of the same problem in behalf of the city of Denver.

"While the scope of your investigation is, of course, broader than that of the Denver committee, the purpose of both is nevertheless the same, namely, to find and suggest a solution of the traction question.

"That the problem is national and not local was soon realized by the Denver committee, and in addition to a mass of data relating more particularly to the Denver situation, a substantial amount of information concerning the national phase of the problem was also accumulated. We shall be very glad to place at your disposal all of the data which we have accumulated in the course of our investigations.

"The Denver Committee of Fifty-five was appointed on January 25, 1919, by Mayor W. F. R. Mills. The method of appointment, the personnel, and the organizations represented are set forth in the report of the committee filed with the mayor, dated May 28, 1919, and copy of which we have pleasure in sending you herewith. The report has crystallized in an ordinance which is to be submitted to the people of Denver at a special municipal election to be held on October 22, 1919, and we have the honor to also inclose herewith copy of the proposed ordinance together with some incidental literature in behalf of it issued and distributed by the committee.

"In view of the foregoing we venture to ask your good offices and help in the solution of the Denver problem. If after a review of the inclosed exhibits your honorable body agrees with our committee that the ordinance we have submitted embodying the service-at-cost plan should be approved by the people of Denver at the coming election, will you not, in conformity with your expressions above set forth: (1) Schedule a meeting of your commission in Denver on a date substantially prior to October 22, or (2) if that be impossible, can you not arrange to send one or more of your members or representatives to Denver with the view to helpful results, and (3) give such expression in approval of this measure prepared by the Denver Committee of Fifty-five that we may use it publicly in the campaign leading to the election.

"Respectfully submitted.

"TRAMWAY ADJUSTMENT COMMITTEE OF FIFTY-FIVE,

"By W. H. DICKSON, *Chairman Campaign Committee.*"

With the letter were included copies of our committee report, the ordinance and two pamphlets. In behalf of our committee I again venture to urge that you will act favorably upon one or more of the three suggestions made to you in the latter and as repeated in this telegram.

W. H. DICKSON,
Chairman Campaign Committee.

Mr. OGBURN I will say that prior to receiving this telegram I had already obtained a copy of the ordinance and a copy of the report of the committee of fifty-five.

The CHAIRMAN. How many witnesses have you remaining for to-day?

Mr. OGBURN. Mr. Marion Jackson, of Atlanta, and Mr. Stiles P. Jones, who testified on yesterday, and who was questioned by one of the commissioners and Mr. Warren relative to a statement prepared by the Electric Railway Association showing the relation of the valuation of the 26 companies to the securities of 26 companies. Mr. Jones, since he was cross-examined in regard to this tabulation and was not able to answer one or two questions in regard to it because of his unfamiliarity with it, wanted to make a brief explanation before the commission on that point.

The CHAIRMAN. So that we have only two other witnesses for to-day?

Mr. OGBURN. Yes.

The CHAIRMAN. Proceed, Mr. Jones.

ADDITIONAL STATEMENT OF MR. STILES P. JONES.

Mr. JONES. You remember that this exhibit, being a comparison of valuation and capitalization of 26 electric railways, based upon letters to the American Electric Railway Association and records of valuation in fare cases, prepared by or for the American Electric Railway Association, was submitted to me near the conclusion of my testimony. I did not even have the opportunity to glance it over. Otherwise I should have felt that certain statements in the exhibit should be answered.

Since then I have given more study to it. And it seems to me still more that the statement should not go into the record in its present form, unexplained and unanswered. It does injustice to both sides. I will explain as I go on.

The Capital Traction Co., Washington, D. C.: This is the valuation based on accepted values, July 1, 1914, brought up to March 1, 1919, by the company: \$25,311,184.

As the commission probably all know, the District Public Service Commission reported on September 6 the valuation of both of the Washington properties. It reported the value of the Capital Traction Co. to be \$14,270,000.

Chicago surface lines: Board of supervising engineers, Chicago, \$157,905,000, purporting to be the valuation of the property. That was not the valuation of the property. That was the capital investment under the contract of 1907, and had no reference to valuations whatever.

In the early part of this year, as shown in my exhibit, the Illinois Public Service Commission found a value of the property for rate-making purposes of \$113,000,000.

Detroit United Railway Co.: The statement here, value based on valuation of Railroad Commission and subsequent capital expenditures to December 31, 1918, \$65,496,377.

In 1916, Prof. Bemis made a valuation of the property for the city and found a value of \$20,000,000, of which he stated publicly, in his report, \$2,000,000 was practically a gift.

In July of this year the company came to an agreement with the city as to the price of the property for municipal purchase. That price was \$31,500,000. That was contained in a proposition which went before the voters and was voted down, in part, according to my understanding, because it was regarded as excessive.

Mr. WARREN. May I interrupt you there just for a moment, Mr. Jones? Were not those valuations on different properties? Was not the city valuation to which you last referred the city property, and the valuation there on the entire property of the company?

Mr. JONES. I will explain that by itself, when I get through with the other things.

Mr. WARREN. All right. I just wanted to call your attention to it.

Mr. JONES. United Railways Co. of St. Louis: The statement here is: Value agreed upon by the city and company represents compromise of conflicting valuations, January 1, 1918, \$60,000,000. That is correct, but it should be understood that that is merely a tentative valuation, which was protested vigorously by elements in the public, and that there is now pending an official valuation by the Missouri State Public Service Commission.

In that connection, Mr. James E. Allison, who since 1915 has represented the companies as a valuation appraiser, valued the property representing its cost in 1917 at \$48,000,000, and that was the undepreciated value; there was no allowance for depreciation whatever.

Metropolitan Street Railway Co., Kansas City: Statement here is that B. J. Arnold, appointed by the court, made valuation February, 1912, of \$35,000,000.

The Arnold valuation was made for the receivers, the receivers of course, representing the property interest.

Mr. Arnold's valuation was one of the most ingenious valuations I have ever seen, in the results in bringing out intangible values.

My recollection of that valuation is that about one-third of the amount, a little more, represented purely intangibles. The agreement, however, entered into between the city and the company con-

tained in the franchise of 1914 was \$25,649,000; and that was so generally recognized as being excessive that \$6,300,000 of it, it was provided, should be amortized out of the surplus earnings, the combined surplus earnings to go to the company and the city.

There is one more, I think.

Portland Railway, Light & Power Co., Portland, Oreg.: The statement here is, valuation by the public-service commission, June 30, 1915, \$46,651,174.

The trouble here is that the Portland Railway, Light & Power Co. is a combination of city and interurban lines, and of electric properties. Apparently they are all included.

The report gives the miles of single track as 185. On this basis there would be a valuation value of \$250,000 per mile and a capitalization value of \$323,000 per mile.

You see, the mistake there was in taking the mileage evidently within the city limits and using the valuation and capitalization of the combined properties.

The State public-service commission, on July 31, 1919, reported the value of the property of the street-railway company, presumably in the city, at \$18,698,500 for rate-making purposes, which would be at the rate of about \$100,000 per mile.

The same mistake that was made in the Portland case has been made in other cases, of including the combined properties, not only street-railway but electric also, and in one case gas.

For instance, here is the Georgia Railway & Electric Co., Atlanta, Ga., valuation by the Georgia Railroad Commission, August, 1918, of \$25,000,000. That is a combination street-railway, gas, and electric property, with lines both in and out of the city.

My inference is that that valuation and the capitalization include the combined properties.

I think there is one more of the same type. No; there are just the two—the Portland Railway Co. is the other concern. So here we have figures mixing in both street-railway and electric properties with combined valuations and capitalizations, and the final figures purporting to represent the value and capitalization per mile of single track of street-railway companies only.

So the compilations are an injustice to both sides of the controversy in that respect.

Those are the facts which I desire to produce at this time.

MR. WARREN. I should like to have permission, Mr. Chairman, to have our statistician look that over; in the light of Mr. Jones's criticism, and file an amplified and corrected schedule if he agrees that there are errors in it.

THE CHAIRMAN. That will be your privilege.

MR. WARREN. It was gotten up with the best sources of information we had at the time.

(Witness excused.)

ADDITIONAL STATEMENT OF MR. MARION M. JACKSON.

MR. JACKSON. Mr. Chairman and gentlemen of the commission, the additional matters which Mr. Key desires me to offer to the commission are those which were called to our attention more directly since my presence before the commission before, and they applied specifi-

cally more to the condition generally over the country and the relations of these various companies resulting in one of the situations from which we are suffering there at Atlanta, but I believe our situation at Atlanta is better than a majority of the cities.

We start out with this proposition: That the public has been led to believe that the stock and securities of these companies are in the hands of widows and orphans, bankers, and insurance companies, and that the call for action to raise the rates throughout the country generally is to save these investors and these companies, in particular, back of it.

We find with reference to the situation there in Atlanta, for example, that in advertisements selling the securities of the Georgia Railway & Power Co. those advertisements state that the United Gas Improvement Co. of Philadelphia, under the heading "Management"—the United Gas Improvement Co. of Philadelphia has representation on the board of directors of both the Georgia Railway & Electric Co. and the Georgia Railway & Power Co. You will recall, from my evidence here before, the Georgia Railway & Electric Co. is leased to the Georgia Railway & Power Co.

The United Gas Improvement Co. has stock in both corporations. I think that the time they possibly came in was when the company acquired the Atlanta Gas Light Co., back in about 1903.

The United Gas Improvement Co. is interested in 68 public utilities throughout this country.

In their financial statement, as given in Moody's manual for 1918, it shows that their undivided profits that year, after paying the dividends on their stock—that the undivided profits of that company in that year were \$35,637,936. The undivided profits had increased in the last years something like \$8,465,835, approximately.

It does not look like the company is suffering from its investments in public utilities.

You see, that company's ownership of stock in the Georgia Railway & Power Co. and the Georgia Railway & Electric Co. is touching the life of 48 different towns and cities in the State of Georgia.

We pass from that to other towns in the State of Georgia, and we find that the Stone & Webster organization comes in.

The Stone & Webster organization controls something like 66 of these companies. One of them in the State of Georgia there touches eight towns in the State and two in the State of Alabama.

We come to this proposition here that in my evidence before I mentioned to the commission: That we think that the public is entitled to some of the benefits which accrue to the owners of electric properties when their electric properties operate both the lighting systems and the street railways; it is a joint property. And I verily believe that an investigation of that end of the subject would develop the fact that if the people were getting the real benefit of the cost of producing electric current and selling it to the public, you could, instead of increasing your car fares, I think you could carry most of the public for nothing in a great many of the cities.

That may be an extreme statement, but I come across this situation: For instance, in the city of Columbus, where the Stone & Webster people control the electric-light situation, the gas situation, and the street railway: The maximum rate for current in the city of Columbus is 11.1 cents per kilowatt hour. In the city of Windsor,

in Canada, the cost of current, where they have the service of the Hydro-Electric Power Commission of Ontario—and Windsor is a city of the same size, approximately, as the city of Columbus—the cost of current is 4.9 cents for homes and 3.9 cents for lighting places of business.

Commissioner MAHON. You are speaking of Columbus, Ga.?

Mr. JACKSON. Yes.

Commissioner BEALL. May I interrupt you for a moment? I suppose you are familiar with the fact that there has been a great deal of controversy in Canada for a number of years; a great many people claim that the Hydro-Electric Commission there does not correctly report its earnings.

Mr. JACKSON. Yes.

Commissioner BEALL. And that they have always refused to give a real statement, so that you can not tell really what all the expenses have been.

Mr. JACKSON. But I find that their books have been audited a good many times, and that at the very time that the street railroads and electric-light companies are before the commissions of the United States appealing for increased rates, Sir Adam Beck, chairman of the Hydro-Electric Power Commission, was testifying here in Washington and giving the facts with regard to those cities and towns up there, where, instead of the rate going up, the rate has been steadily decreasing—to keep the towns from paying themselves out of debt too soon.

Commissioner BEALL. They have never allowed a real audit to be made of their books. There is a great controversy about that.

Mr. JACKSON. I understand there is controversy.

Commissioner BEALL. You also understand that he has municipal and provincial aid?

Mr. JACKSON. Yes. It is the cooperation of the cities together—the towns and cities.

Now, I turn to Savannah—the city of Savannah, where the Stone & Webster people again control all of those interests. And I find that the city of Savannah is paying the maximum rate there of 10 cents for lighting houses and 9 cents for lighting places of business, while the city of Hamilton, another one of those cities up there, is paying the rate of 3.7 for lighting houses and 1.9 for lighting places of business. The city of Hamilton is saving, by its reduction in rate—their rates were approximately the rates we are charged before they began municipal ownership—they are saving there, in the city of Hamilton, in one year, \$250,058.16.

Commissioner BEALL. Are you quoting now, in Hamilton, from the city's or from the company's business? Because the city does practically no business in Hamilton, except lighting the streets.

Mr. JACKSON. The current goes in from the Hydro-Electric Power Commission to the city and is sold to the homes.

Commissioner BEALL. Oh, only for a small part.

Mr. JACKSON. I beg your pardon, sir. It is sold direct.

Commissioner BEALL. That is only a small part. Most of the business in Hamilton is done by the private companies.

Mr. JACKSON. I think you will find that, up there—if you take the city of Toronto, for instance—

Commissioner BEALL. That is a different company.

Mr. JACKSON. Toronto has the private company and also the Hydro-Electric Commission.

Commissioner BEALL. I have personal knowledge of Hamilton. That is the only reason I spoke on that.

Mr. JACKSON. The number of the patrons of the company I do not remember in Hamilton, but I can give the number of customers of the company in Toronto—something like 37,000.

Commissioner BEALL. You have not got those figures for Hamilton, have you?

Mr. JACKSON. No.

Commissioner BEALL. That would show quite a difference.

Mr. JACKSON. But that was the amount that was saved in bills by the people of the city of Hamilton. Just run that out in figures and calculate—run that over a period of 30 years, the usual life of a bond, and you will find that the city of Hamilton is saving, by doing its own business, a sum of approximately \$16,000,000, which is enough to pay for the stock of all the companies operated in Savannah by the Stone & Webster people and leave a margin over and above that of eight million and odd dollars.

Facts like those are the things which keep the spirits which Mr. Mortimer referred to in every community uneasy and stirring around to get at what is wrong with the local situation with regard to the public utility.

Now, I go over to the city of Athens, which is controlled now by another company. The street-railway and light and power situation in the city of Athens, Ga., is controlled by the City Service Co.

I note from the last Moody's Manual, 1919, that the Service Co. is operating in something like 110 different cities in this country; that it is paying a dividend annually of 6 per cent in cash and 9 per cent in common stock, and that it is the determination of the company to increase their stock dividend each year by 3 per cent so long as the present prosperity continues.

Commissioner BEALL. Are you speaking of the City Service Co.?

Mr. JACKSON. Yes.

Commissioner BEALL. Their revenue is derived principally from oil.

Mr. JACKSON. I will get to that. I will state with regard to that that their statements show that the major part of their earnings come from oil and gas. But it is all a part of the same public-utility problem in the city.

I note also that the City Service Co. stock is selling at over 480; and that this watered stock is coming out in the form of stock dividends each year to increase the burden which rests upon the public.

We go to another city in Georgia, Macon, and you can receive the same story there—another holding company.

We will pass out of Georgia, though—out of the question purely of municipal ownership. And these are the facts which we wish to urge—and I have no doubt that it has already occurred to this commission to investigate—but these are the facts which come before us now, in a way, in connection with our problem here, that is startling.

We cross over into Alabama, and we come to the Alabama Power Co. The president of the Alabama Power Co. is a resident of London, England. The Alabama Power Co. controls the lock and dam known as Lock and Dam No. 12 in the Coosa River, which was supposed to bring down the rates in Alabama, and it did bring them down. I recall the city of Gadsden, where the rate was 16 cents per kilowatt hour, and it was reduced to 12. But 12 cents per kilowatt hour, brought from the same kind of source of power they are using up here in Canada, is still about five times what the people in Canada are paying for their current.

The Alabama Power Co. controls these companies: The Alabama Electric Car, the Wetumpka Power Co., Alabama Power & Electric Co., Alabama Power Development Co., Anniston Gas & Electric Co., Huntsville Railway & Power Co., Decatur Light, Power & Fuel Co., Etowah Light & Power Co., the Pell City Light & Power Co.

It also owns the entire capital stock of the Interstate Power Co., the Alabama Interstate Power Co., the Birmingham, Montgomery & Gulf Power Co., the Alabama Power Co., the Alabama Power & Light Co., the Muscle Shoals Hydroelectric Power Co.

This company, which owns all of these companies, is in turn owned by another company known as the Alabama Traction, Light & Power Co.

The Alabama Traction, Light & Power Co. is incorporated in Canada, but doing business in Alabama and owning these companies which own one right on top of the other.

Its capital stock is \$30,000,000. Its bonded debt \$13,000,000. Its president also is a resident of the city of London, England.

At the time that the Government started to put in this plant for getting nitrate at Muscle Shoals the consent of this foreign-owned corporation had to be gotten for the use of a part of the property.

We come to this: The Alabama Power Co. sells current to the Birmingham Railway, Light & Power Co. The Birmingham Railway, Light & Power Co. has recently gone into the hands of a receiver.

The question is: How much did the cost of its current have to do with landing it in the hands of the receiver?

Commissioner GADSDEN. What did they charge for it?

Mr. JACKSON. I have not that; I can not get that.

Commissioner GADSDEN. Then how does that help us?

Mr. JACKSON. I wanted you to see this situation now:

The Birmingham Railway, Light & Power Co.—in that case you again are up against a mass of these holding companies—the bill for the receiver, to put the Birmingham Railway, Light & Power Co. in the hands of a receiver, was filed by the holding company, the American Cities Co., which owns that company.

Commissioner BEALL. I can answer your question, Mr. Commissioner. I can not give you the exact figures, but the Birmingham Railway, Light & Power Co. buys its power from the Alabama Power Co. because it was able to get a much cheaper price than it could manufacture it for itself.

Commissioner GADSDEN. That is what I wanted the witness to say.

Commissioner BEALL. I have personal knowledge of the situation.

Commissioner GADSDEN. You have made an exhaustive inquiry into this matter, Mr. Jackson, and that is the reason I asked you that question.

Commissioner BEALL. I had nothing to do with the receivership.

Mr. JACKSON. I could not get the books of the company. They are not open to me.

Commissioner GADSDEN. But you are making an insinuation that they are charging an excessive price. Is that fair without having made an investigation into this matter?

Mr. JACKSON. I am showing you where I know the facts that they are charging an excessive price.

Commissioner GADSDEN. For current?

Mr. JACKSON. Yes.

Commissioner GADSDEN. In Birmingham?

Mr. JACKSON. For instance, in the city of Gadsden the rate is 12 cents.

Commissioner GADSDEN. That is to the public?

Mr. JACKSON. That is to the public.

Commissioner GADSDEN. You are insinuating that the Birmingham Railway, Light & Power Co.—and we are investigating railways here, and not lighting companies—went into the hands of a receiver because they were buying their power at an excessive price, and I ask you: Did you take any steps to find out what was the price of current paid by the railroad?

Mr. JACKSON. No; I did not.

One of the purposes of my coming back here is to ask that this commission go into this price of current all over this country. I am going into this as other cities, where I will show you the price of current. I can show you the connection with the street railway, but I can not, because it would have been impossible for me to get the information—if I had gone to the companies, my request would have been refused, and it would have been impossible in the time I had at my disposal to do that—I am just giving you the picture as it comes to me in investigating these conditions.

I find that the Birmingham Railway, Light & Power Co., while it buys its current from the Alabama Power Co.—that the Birmingham Railway, Light & Power Co. is owned by the American Cities Co., which company owns the Houston Light & Power Co., the Memphis Street Railway Co., the Knoxville Railway & Light Co., the Little Rock Railway & Electric Co., the New Orleans Railway & Light Co.

Now, three of those companies have been put into the hands of a receiver in the last 12 months on petition filed in the holding company itself, by the American Cities Co.—Memphis, New Orleans, and the city of Birmingham.

Commissioner WEHLE. Is it your suggestion, Mr. Jackson, that this commission ascertain at what price the traction company at Birmingham does purchase its current?

Mr. JACKSON. I am making this suggestion, Mr. Commissioner, that the solution of the problem which is before you gentlemen here is largely involved in the question of the price that these companies pay for the current, and then the price which they get where they manufacture the current.

In other words, "in the majority of these cases, as I see it, electricity is a by-product. It is not like a mule that ate up hay and gave nothing in return except a valuable piece of advertising matter, which the companies are using now to evade the question of paving the pavements between the tracks—but the generator of current produces a by-product, just exactly like the manufacturer of gas in producing coke and coal-tar products produces a by-product that the public is entitled to the benefit of in reducing the cost of service.

I am asking that this be investigated, not only in Birmingham but in each city in this country where this situation prevails, as looking to the solution of the problem as a whole.

Now, I come across this, and again I am dealing largely in suspicions—necessarily so: I find that among the 25 subsidiary companies owned by the United Gas & Electric Corporation, which in turn owns the American Cities Co., another company holding the other holding company, the companies have a total capitalization of \$81,000,000 of capital stock and \$51,000,000 of preferred stock; that they have another company there, which is known as the United Gas & Electric Engineering Corporation. The United Gas & Electric Engineering Corporation was organized in 1913 to act as consulting, contracting, and operating engineers, and is purchasing agent for the subsidiaries of the United Gas & Electric Corporation and the American Cities Co.

It has entered into contracts with the companies named for this purpose. In other words, we want the wheel within the wheel examined.

Commissioner WEHLE. Who owns the stock in the United Gas & Improvement Co.?

Mr. JACKSON. The United Gas & Electric Engineering Co.?

Commissioner WEHLE. Yes; that is what I meant.

Mr. JACKSON. According to Poor's Manual, that stock belongs to the United Gas & Electric Corporation, and the United Gas & Electric Corporation owns the American Cities Corporation, and the American Cities Corporation owns the Birmingham Railway, Light & Power Co., which is in the hands of a receiver.

Commissioner WEHLE. The American Cities Co. also, as I understand, controls the companies which operate these various power plants in Alabama?

Mr. JACKSON. No; that is another group of holding companies. In other words—I have passed from that—they only touch with the Alabama Power Co.

In other words, I am trying to give you gentlemen a picture of the thing which makes us uneasy.

Commissioner MAHON. The only place that power is furnished to them from the one referred to is at Birmingham, is it not?

Mr. JACKSON. The only street railway that I touch specifically.

Commissioner MAHON. Yes.

The CHAIRMAN. The hour of adjournment has arrived, Mr. Jackson. How much longer will it take you to complete your statement?

Mr. JACKSON. I should like to get this whole statement before you gentlemen, if I could.

The CHAIRMAN. Is it in tabular form, so that you could file it?

Mr. JACKSON. Not so that I could file it, sir. I am saving you as much of this as I can.

The CHAIRMAN. How much longer would it take you to complete your statement?

Mr. JACKSON. Fifteen or twenty minutes longer, I think.

The CHAIRMAN. We will adjourn at this point until 8 o'clock to-night.

(Whereupon, at 5 o'clock p. m., an adjournment was taken until 8 p. m.)

EVENING SESSION.

STATEMENT OF MR. MARION JACKSON—Continued.

The CHAIRMAN. You may proceed, Mr. Jackson.

Mr. JACKSON. I think the point where I left off was with reference to the receivership of the Birmingham Railway, Light & Power Co. and the New Orleans company, the Memphis company, and the holding company, filing the petition for the receiver and the inter-working engineer and contracting company, as to its connection.

I want to go from there to San Francisco and go back to the time of the finding of the grand jury there, when they published their report on the causes for corruption in the city of San Francisco, in which the United Railroads was involved, and also the question of gas entered into it.

You will recall there was one item there whether the question of the rate for gas was involved, where the board had been elected on the platform of reducing the cost to 75 cents and a bribe of \$20,000, according to this report of the grand jury, was given and the gas rate was retained, resulting in a saving of \$600,000 a year in the company's income on gas. I find that the company controlling the gas situation had a present there. That \$600,000 a year, which was made at a cost of \$20,000 to certain public officials, who served in the penitentiary for it. The \$600,000 a year will in 30 years' time, with interest compounded at 5 per cent, amount to something over \$39,000,000, made by an investment of \$20,000 in public officials.

I find that the Pacific Gas & Electric Co. was incorporated on October 10, 1905, as a holding company to acquire the capital stock of the San Francisco Gas & Electric Co. and the California Gas & Electric Corporation. It furnishes gas to 53 cities, electricity to 176, and water to 19 cities. Its authorized capital stock is \$100,000,000. Its bonded debt outstanding December 31, 1917, was \$79,000,000, in round numbers. In 1911 the company declared a stock dividend of 50 per cent. The profits of the company may be gathered from the fact that while only \$34,000,000, in round numbers, of common stock and \$24,000,000 of preferred stock had been issued up to 1917, the company's surplus and reserves at that time had grown to \$11,261,759.

Commissioner GADSDEN. Where does that company operate?

Mr. JACKSON. In San Francisco and 173 places around it.

Mr. WARREN. What company was it?

Mr. JACKSON. The Pacific Gas & Electric Co.

The gross earnings of the company ran from \$12,667,000 in 1908 to \$20,321,728 in 1917, in which year the net earnings of the com-

pany were \$8,717,037. After the payment of a dividend on preferred stock of \$4,471,105 and \$1,281,372 on common stock, a surplus remained for the year of \$1,678,602.

That is one of the public utilities out there in San Francisco. The one that I am particularly interested in out there, though, is the United Railways Investment Co., which was incorporated February 15, 1902, under the laws of New Jersey as the United Railways Investment Co. of San Francisco. It later dropped the name of San Francisco and was then simply the United Railways Investment Co.

The president of both the United Railways Investment Co. and the United Railroads of San Francisco was the same man, a former citizen of Atlanta, Mr. Pat Calhoun.

I find that the California Railroad Commission on May 17, 1915, issued a general order directing the dividends be not paid on \$5,000,000 of 7 per cent cumulative first preferred stock, in the absence of any plan of restitution of the \$1,096,000 withdrawn from the treasury by the former president in connection with the investment in stock of the Solano Farms Co.

The United Railroads of San Francisco is controlled by the California Railway & Power Co. The California Railway & Power Co. has a capital of \$40,000,000 common and \$2,800,000 first preferred stock and \$6,874,400 of preferred stock.

This company, in addition to the United Railroads, controls the companies doing the electric and gas business in the towns of Monterey, Solenos, and Pacific Grove. It controls the Sierra & San Francisco Power Co., which sells current to the United Railroads of San Francisco at 7.5 cents per kilowatt hour.

The California Railway & Power Co. is controlled in turn by the United Railways Investment Co., with a capital stock of \$36,400,000 and a bonded debt of \$18,293,000.

The United Railway Investment Co. also controls the Railroads & Power Development Co., with an authorized capital stock of \$6,000,000. And then we come back across the continent—and the Philadelphia company with an authorized capital stock of \$44,900,000 of common stock, \$2,033,400 of 5 per cent noncumulative preferred stock, and \$25,000,000 of 6 per cent cumulative preferred stock.

Its bonded debt and stock of March 31, 1918, was \$40,649,000. Among other companies, the Philadelphia company owns the entire capital stock of the Pittsburgh Railways Co.

The bonded debt and notes of the United Railways and Investment Co. were \$21,056,000 in December, 1912. In 1917, it had been reduced to \$18,293,000. The company's surplus was \$4,256,542 in 1912. It had been increased to \$7,055,715 in 1917. In other words, a decreasing bonded debt and increasing surplus would look as if they were getting money from somewhere.

But the Pittsburgh street railways are all in the hands of a receiver.

We come back across the continent again and come to another place, Chicago. An interesting thing comes out with regard to Chicago Railways Co., that after Mr. Yerkes retired from the control, he was reported to have carried with him some \$10,000,000 in profits; the street railways at the time they went into the hands of a receiver out there had securities outstanding, aggregating

\$110,000,000. According to Moody's Manual, when the Chicago Street Railways Co. bought those properties out there and took them in, the value of the property taken over by the company at the receiver's sale was \$29,000,000, although there had been outstanding against it securities of \$110,000,000.

Since that date additions have been made running the cost up—up to December 31, 1917—to the amount of \$89,529,413, against which was a bonded debt of \$97,727,591. As we all know, Chicago has voted repeatedly in favor of municipal ownership. It has not gotten it yet. I believe the last announcement is that they expect to have it within the next 3 years.

Commissioner WEHLE. Is that for all the railway systems, street and elevated?

Mr. JACKSON. I could not state that, but they expect to have all of it.

Commissioner WEHLE. And their rapid transit?

Mr. JACKSON. But I saw an announcement recently that the outlook was that within the next 3 years they would take over that property.

The CHAIRMAN. Does the proposition involve the taking over of all the street railways in Chicago, Mr. Mortimer?

Mr. MORTIMER. It does, and the unification of the street and elevated lines.

The CHAIRMAN. Proceed, Mr. Jackson.

Mr. JACKSON. The interesting thing in regard to Chicago which comes in in connection with the cost of current and electricity in connection with these properties is that the city of Chicago is a wonderful example of what a city can do with its own plant, in what it has done from the building of the drainage canal, where it is generating electricity, according to the twentieth annual report of their department out there, for the city for the purpose of lighting its streets at a cost of \$15 per horsepower or approximately one-half cent per kilowatt-hour.

Mr. Gardner S. Williams, consulting engineer of Ann Arbor and Chicago, reported to the trustees of the sanitary department that the cost of generation in 1915 was a little over 0.6 of a cent per kilowatt-hour to generate the current. Notwithstanding this living illustration of the cheapness of the production of electric current, private ownership is so strongly entrenched in Chicago that the bulk of the electric-lighting and power business in the city is controlled by the Commonwealth Edison Co., which charges a maximum rate to the people of Chicago of 9 cents per kilowatt-hour for current. If the city, in its municipal plant can generate current at less than one-half cent per kilowatt-hour, the profit in selling current at almost 18 times that amount, or 9 cents per kilowatt-hour, may be imagined. Also it explains why the dividend by the Commonwealth Edison Co. was only, \$1,372,045 in 1908, \$3,067,352 in 1918. In this last year \$1,009,725 was added to the company's surplus, making its surplus, after the payment of dividends, \$6,824,990, having risen to this amount from the sum of \$485,668 in 1908.

Dividends of 8 per cent per annum have been paid since November 3, 1913. The month before the beginning of the first 8 per cent dividends, a stock dividend of 10 per cent, or \$3,695,000, was paid to the stockholders.

Mr. Henry A. Blair, chairman of the board, and president of the Chicago Railway Co., according to Moody's Manual, is also a member of the board of directors of the Commonwealth Edison Co. The Commonwealth Edison Co., under contracts running from 5 to 25 years, furnishes electric energy amounting to 300,000 horsepower to the street railways and elevated railways of Chicago. No small part of the raise in car fares recently proposed in that city will therefore necessarily go to further increase the surplus and dividends of the Commonwealth Edison Co.

Commissioner MAHON. May I ask you a question there? Do you know what they are paying for that power?

Mr. JACKSON. No, sir. As I stated in the beginning, I have no way of getting at terms of these contracts but—

Commissioner MAHON. Do you know that the published statement is, and the company's reports show, that it is much cheaper to get their power—they are getting their power much cheaper from the Edison Co. than they could generate it or make it themselves?

Mr. JACKSON. I have no doubt that it can be easily shown on paper that that is correct.

Commissioner MAHON. Do you know that there is a contract there for that power and that during the entire war period it was not raised?

Mr. JACKSON. No.

Commissioner MAHON. Have you any record of that?

Mr. JACKSON. No; I have no record of that. What I am calling to the attention of the commission, and what I think should be brought to the attention of the public also, is the fact that the earnings of these electric companies, some of them, as in the case of Atlanta, acting absolutely together, and in other cases where the boards of directors are connected in this way, that those companies—now, for instance, the city of Chicago—the rate that the city of Chicago is paying for electricity is higher than the city of Toronto is paying.

Commissioner MAHON. But you are not giving us any figures, you are not giving us any information; only a declaration as to what the Commonwealth Edison Co. is doing in Chicago. You are not showing us how much of that goes to the increased rate of fare in Chicago, and from my knowledge of that I know that so far not anything has.

Mr. JACKSON. Nothing, because the fares have only recently been increased, but—

Commissioner MAHON. Yes. And because of contracts which were made with those people prior to the war-time conditions they have carried it through.

Mr. JACKSON. That is no doubt correct, but what I am speaking of is this: A contract being made between these companies, with the connection on the board of directors, and showing the enormous profits which have been made by these companies in the past out of those contracts. I do not mean to say—

Commissioner MAHON. That is, at the contract price?

Mr. JACKSON. Exactly. What I want to get at and what I think is one of the solutions of this problem is the cost of current to these companies. I do not mean to intimate that the contract has been raised since the proposed raise in fares, but what I am suggesting is that the solution of this problem is that, instead of raising the

price of car rides, you cut the price that you are paying for current, and in addition to cutting the price that you pay for current, you also give to these electric companies, situated as the majority of them are, where they are interrelated, the profits which they are making by the sale of their by-product.

Commissioner MAHON. Can you give us any idea, for instance, in the Chicago case, what that power ought to be furnished for to the street-railway company?

Mr. JACKSON. For instance, in Chicago, where the maximum rate for current is 9 cents, the maximum rate for current in Toronto is approximately $2\frac{1}{2}$ cents per kilowatt-hour.

Commissioner MAHON. But how much does the railway company pay there?

Mr. JACKSON. I could not say because I do not know. But there is that margin of profit there, and you see the electric companies all over the country going up in their profits and yet this cry goes out with regard to the street railways.

Commissioner BEALL. Have you given any consideration to the fact that some of these companies you are speaking of, this last, for instance, Chicago, get this current by use of coal, and in the Toronto situation it is from water power, and it makes all the difference in the world? You ought to know those things.

Mr. JACKSON. I recall, for example, that the city of Cleveland, where the municipal plant sells current at 3 cents per kilowatt-hour, they generate it by coal.

Commissioner BEALL. Yes; and they sold it originally at a loss.

Mr. JACKSON. They are making money at it at present, however.

Commissioner BEALL. They did finally.

Mr. JACKSON. The municipal plant is paying its way there, I think.

Commissioner BEALL. They are also buying current from a private company.

Mr. JACKSON. They have not got the facilities for supplying all the demands. But you go out to Seattle, and you strike a municipal plant there—

Commissioner BEALL. Well, that is a water-power plant, you know.

Mr. JACKSON. Yes. But Chicago and its drainage canal, as I called attention before you came in, is generating current which it delivers to the city to light its streets at 0.5 of a cent per kilowatt hour, and, according to engineers, the cost for the generation of it is a little over 0.6 possibly.

Commissioner BEALL. I think the possibilities are very limited, are they not, on the canal? I think that is what the trouble is.

Mr. JACKSON. I could not say with reference to that.

Commissioner MAHON. You do not know what the cost is to the Commonwealth Edison Co.?

Mr. JACKSON. No. The only way in which I can get at that is the way in which their surplus and dividends have been increasing. In other words, they are coining money. They are not needing any assistance from commissions or anyone else to show them how to meet their bills and also pay their dividends. They are having no difficulty.

Commissioner GADSDEN. Are you saying that from your own personal knowledge or just inference?

Mr. JACKSON. No; I am saying that from the published figures in Moody's Manual, from which the majority of these figures are taken.

Commissioner MAHON. You know those companies abandoned their power houses and purchased their power there by contract from the Edison.

Mr. JACKSON. I did not catch that.

Commissioner MAHON. They abandoned their own power houses and purchased their power from the Edison Co.

Mr. JACKSON. Now, I was struck right along on that point. And I saw in one of the electric magazines that in the contract by which Seattle took over its municipal street railways, they paid the Stone & Webster people out—because the Stone & Webster people also operate out there—\$15,000,000 in bonds, and in addition to that, although Seattle has its own plant, they contracted to take the current from the Stone & Webster people at a rate of 1 cent per kilowatt hour. Well, that is higher than the United Railroads is paying to its interallied company in San Francisco. It is higher than the Atlanta company is paying to the Georgia Railway and Power Co., which is its company, and yet, notwithstanding that higher rate which Seattle is paying, Seattle is earning its way, according to Mr. Murfine, on the 5-cent fare. They are having no difficulty.

Commissioner MAHON. What does the Seattle municipal plant make power for?

Mr. JACKSON. My recollection is that the rate of fare—the maximum rate of Seattle is $5\frac{1}{2}$ cents per kilowatt-hour.

You go to Los Angeles and the rate is 5 cents, another municipal plant. You come to Cleveland, and it is 3 cents. You cross over—and I was coming to one of the most interesting pictures, to me, in regard to the price of service—go back to the city of Windsor again, that little town in Canada of 25,000 inhabitants, directly across the Detroit River from the city of Detroit. In the city of Windsor the rate for lighting for places of business is 3.9 cents per kilowatt hour, and directly across the river in Detroit, a city of half a million inhabitants, the rate is 10 cents per kilowatt hour, very nearly three times that much—

Commissioner MAHON. Detroit has its own municipal plant.

Mr. JACKSON. Detroit has. It also has a privately owned plant.

Commissioner MAHON. Well, as a city, it has its own plant, and produces all its own light.

Mr. JACKSON. For its streets.

Commissioner MAHON. Yes.

Mr. JACKSON. But not for commercial lighting.

Commissioner WEHLE. What is the cost to the city of Detroit for producing its current, Commissioner Mahon?

Commissioner MAHON. I am not familiar with the latest figures on that.

Commissioner WEHLE. That might be interesting.

Commissioner BEALL. That is from water power, is it not, in Windsor?

Mr. JACKSON. Yes; it is a part of the hydroelectric-power system.

Commissioner BEALL. And Detroit is a steam station.

Mr. JACKSON. Well, what I am getting at is that they are directly opposite. For instance, the first city that I compared to Windsor

also gets it from water power; that is down in Columbus, Ga., where it is 11.1 cents. When we mention Windsor, down in Georgia, before the railroad commission, we are met with the proposal that it is too far away; that conditions vary so in the different sections that it is an unfair comparison.

Commissioner BEALL. They do, because—

Mr. JACKSON. Unquestionably.

Commissioner BEALL. Because your Canadian powers are very high head, and your southern powers are mostly from rivers with a low head.

Mr. JACKSON. But we come back to this situation: One is on one side of the Detroit River and the other on the other; directly opposite each other; and we find the one which is doing its own work across there is getting it at 3.9, while Detroit is paying 10 cents—

Commissioner WEHLE. Is there a water power near Detroit from which power could be purchased sufficient to supply the city?

Mr. JACKSON. Well, I am not enough familiar with the geography there to say whether there is; but I should say that there was, from the fact that Windsor, which is directly across the river, gets it.

Commissioner MAHON. Do you know where Windsor gets its power from?

Mr. JACKSON. Yes.

Commissioner MAHON. Where?

Mr. JACKSON. From Niagara Falls.

Commissioner MAHON. And where does Detroit get its power from?

Mr. JACKSON. I am coming to that a little bit further on, where I compare Buffalo and Toronto. Buffalo and Toronto get their power from exactly the same source—Niagara Falls—and Buffalo is 20 miles from the Falls, while Toronto is 80 miles; and the same difference applies there.

The capital stock of the Detroit Edison Co. is \$25,691,000. This is the course its dividends have taken: It paid dividends at 4 per cent per annum from July 15, 1908, to April, 1910, at which time the rate was raised to 6 per cent. The rate was raised to 7 per cent in January, 1911, which was maintained until 1915. Since that time the stock has been paying an annual dividend of 8 per cent. The gross revenue of its constituent companies increased from \$1,788,000 in 1908 to \$12,279,926 in 1917. Their net earnings jumped from \$682,731 in 1908 to \$3,664,410 in 1917.

The Detroit company controls the St. Clair Edison Co., the Washpenaw Light & Power Co., the Delray Terminal Railway Co., the Edison Illuminating Co., and Peninsula Electric Light Co.; the Detroit Edison Co. being itself controlled by the North American Co., which controls, or is interested in, the Wisconsin Edison Co., the Union Electric Light & Power Co., the St. Louis County Gas Co., the United Railways Co., and the West Kentucky Coal Co., and other companies in addition to the Detroit Edison Co. Its capital stock is \$29,793,300. Its undivided profits, after payment of dividends since the year 1909, amount to \$3,353,742, after deducting a reserve to cover depreciation of securities of \$4,000,000.

When the rates in Toronto, Ontario, are compared with those in a city like Atlanta, Ga., the objection is made as to the difference in

locality. Buffalo and Toronto get their current from the same source, as I just stated, Niagara Falls, Buffalo being only 20 miles away, while Toronto is 84 miles. Notwithstanding, the Hydro-Electric Power Commission, publicly owned, supplies current in Toronto at one-half the rate charged in Buffalo. The Buffalo General Electric Co. supplies the city of Buffalo. This company is the consolidation of other companies. The surplus of the Buffalo General Electric Co. in 1908 was \$121,580. By 1917 it had become \$931,814, after paying dividends amounting to more than \$2,700,000 upon its capital stock, which amounts to \$5,545,700.

The gross earnings of the company increased from \$1,213,139 in 1911 to \$4,209,719 in 1917.

Now, I come down, Mr. Chairman and gentlemen, to what to me is one of the most striking things in connection with the situation. We get back to Boston and also back to the Atlanta situation. At the time of the organization of the Georgia Railway & Electric Co. the Old Colony Trust Co. figured largely in it. Mr. Gordon Abbott, at that time vice president of the Old Colony Trust Co., was also largely interested in the organization of the roads down in Atlanta, taking a part in the settlement of the row that went on there between the Hurt interest and the Atkinson interest, and leading up to the present situation.

Mr. Gordon Abbott, that is, the Old Colony Trust Co., is at the present time depository and transfer agent for the Georgia Railway & Power Co.—

The CHAIRMAN. At the last hearing did you not fully discuss the Georgia Railway Light & Power Co.?

Mr. JACKSON. Yes.

The CHAIRMAN. Are you giving any new information in regard to that?

Mr. JACKSON. I want to show the connection of the people, that is all. Mr. Abbott is also president of the United Electric Securities Co., which was incorporated in Maine to buy mortgage bonds of corporations operating electric-light, power, and railway plants. Its capital stock is \$500,000 common stock with a par value of \$50 each, and \$1,000,000 of 7 per cent cumulative preferred stock, with a par value of \$100 each. Dividends upon the preferred stock have been paid annually since the organization of the company. A dividend of 25 per cent per annum was paid upon the common stock from 1909 to 1915, inclusive. In 1916 the dividend was 20 per cent. In 1917 no dividend was paid, but the surplus jumped from \$651,563 to \$2,199,324.

The net income of the United Electric Securities Co. for 1917 was \$2,149,583, or more than four times the par value of its total common stock, or at least that of its preferred stock. Its stockholders had received in dividends, \$2,740,000, and after deducting \$1,237,286 to cover decrease in book value of assets, the surplus still remaining in 1917 was \$2,199,324.

Right there, when it comes to the question of the bonds which was issued to cover the developments of a plant such as that in Atlanta, for instance, at the last rate hearing, there was a contract of \$5,000,000 that was specified for the development of certain properties in which the statement was made that the contract has

been passed up and that the company had been able to finance \$3,500,000 of it, but that they had to get the \$1,500,000 from the rates to go into permanent improvements, for the reason that under their contract with their bondholders they have to put up one-fourth of all improvements from money not raised by bonds, and in addition to that, the difference between par of the bond and the amount that it sold for.

For instance, the street-railway companies in Atlanta and the power company are planning in all an issue of \$50,000,000 of bonds. The loss of selling those bonds at from 80 to 85, as I understand the majority of the bonds have been sold at, is \$150 to \$200 on each bond. If there is a \$150 loss, it amounts on the whole thing to \$7,500,000. If there is a \$200 loss on the bond, there is \$10,000,000 loss, which has to come out of the fare in these properties; and the trading companies, it seems to me, are the explanation of where that \$200 each goes in in these various bond arrangements.

I pass from the securities company to the United Electric Securities Co.—that is only one of these companies—the United Electric Securities Co. The net income in 1917 was \$2,149,583, or more than four times the par value—no, I am repeating myself there.

Mr. WARREN. Before you leave that, you did not mention the amount of debt which the United Electric Securities Co. had outstanding, did you?

Mr. JACKSON. No; I did not go into that.

Mr. WARREN. Well, they issued a large number of debenture bonds. I have no interest in the company, but I know the bonds are frequently offered for sale in Boston and most of that money which you referred to as income on the capital stock simply comes in as interest on the bonds owned and goes out as interest on the bonds issued with which to raise the money originally on the property.

Mr. JACKSON. But it results in an earning to the company of 25 per cent on its common stock; that is, in the report.

Mr. WARREN. But it does not amount to 200 per cent or anything like that.

Mr. JACKSON. No. For instance where the common stock is \$500,000 and the net income during the period was \$2,149,000 it came pretty near being.

Mr. WARREN. I do not think that is net income, and if you will go back to Moody's Manual and look up the whole thing you will find several millions of those debentures outstanding because they are sold in Boston right along.

Mr. JACKSON. The Electrical Securities Corporation is authorized by its charter to acquire bonds of electric railways and electric-light and power companies controlled by the General Electric Co. The common stock of its capital stock was originally \$2,000,000. This was increased by a stock dividend of \$500,000 to \$2,500,000.

Dividends upon the preferred stock have been paid regularly from 1906 to date. Dividends of 8 per cent per annum have been paid on the common stock. After the payment of these dividends a surplus of \$1,570,700 remained. In the nine years from 1908 to 1917, inclusive, the company has had available for dividends a sum of \$4,456,459.

In other words, in those nine years, the company earned more than 125 per cent upon its capital stock.

Another company controlled by the General Electric Co. is the Electric Bond & Share Co. It is authorized to deal in these securities in the same way. This company acts as a fiscal agent for the American Power & Light Co., the American Gas & Electric Co., the Carolina Power & Light Co., the Utah Securities Co., the National Securities Corporation, and the Lehigh Power Securities Co. The company was inaugurated in 1905. It had outstanding in 1917 \$8,500,000 of common stock and \$8,458,000 preferred stock.

A dividend of 5 per cent per annum was paid upon the preferred stock from the date of organization up to 1911, when the dividend was increased to 6 per cent, which has been paid regularly since that date. On the common stock, quarterly dividends at the rate of 8 per cent per annum have been paid since 1909, to date. In addition, an extra cash dividend of \$1,500,000 was paid on the common stock January 14, 1913. Another extra cash dividend of \$1,000,000 was paid on October 31, 1916.

Commissioner WEHLE. Is this a traction company?

Mr. JACKSON. No; this is a company organized to deal in the securities of these companies.

Commissioner GADSDEN. Is not that information all available in Poor's Manual?

Mr. JACKSON. I do not think it is available in Poor's Manual.

Commissioner GADSDEN. Then it is available in Moody's?

Mr. JACKSON. Yes.

Commissioner GADSDEN. It is public property?

Mr. JACKSON. Yes.

Commissioner GADSDEN. It is available?

Mr. JACKSON. Yes. But I have not seen it put out.

Commissioner GADSDEN. It is not new matter?

Mr. JACKSON. None of this is new matter, but I do not think it has been brought out. I have talked to a good many with regard to it who have been absolutely unfamiliar with these facts. I have been looking into the matter myself for a good many years, and I had no information with regard to the increase in the electric end of this company and the earnings of these companies which deal in the securities of these companies. In other words, the business, as it seems to me, is just eaten up by wheels within wheels.

In making these statements, I wish always to say that I mean no reflection on the gentlemen who are interested in these companies; because very probably if I had the opportunity and the brains, I would do the same thing. The fact remains, however, that the public has to pay the bill; and the fact also remains that at the present time, when this wave is going over the country for increased fares, increased rates on street railways—the fact remains that these electric companies and these holding companies all show an upward tendency in their surplus and other things.

The CHAIRMAN. The commission is very anxious to go into executive session at 9 o'clock, Mr. Jackson. It is now 15 minutes to 9. Do you think you can finish in that time?

Mr. JACKSON. I shall be through in about 5 or 10 minutes.

Commissioner MAHON. Did you speak of the Carolina company?

Mr. JACKSON. No. The Southern Power Co. you mean?

Commissioner MAHON. You used the name Carolina just a moment ago.

Mr. JACKSON. No.

Commissioner BEALL. He means the Carolina Power & Light Co.

Mr. JACKSON. I did not speak of that.

Commissioner MAHON. You did.

Commissioner BEALL. The Carolina Power & Light Co.

Mr. WARREN. You spoke of the Carolina Power & Light Co., and you said it was controlled by the American Power & Light Co.

Commissioner MAHON. Tell us what that is.

Mr. JACKSON. I do not recall speaking of the Carolina Power & Light Co. I was simply giving a list of the companies that are controlled by the American Power & Light Co. I could give no information with regard to that company, because I have none. I do not even know where it is incorporated. What I am giving you, though, is a picture of the holding company with its mass of companies underneath.

Commissioner MAHON. You do not know the connections?

Mr. JACKSON. No. The only thing I know is that it is one of the subsidiaries of the American Power & Light Co., which controls the Detroit situation through its control of the Detroit Edison.

Commissioner MAHON. How could I find who were the officers of that Carolina company?

Mr. JACKSON. I have no doubt you could find that in Moody's or Poor's Manual.

I just wish to call attention to this further situation with regard to the situation in Boston and Atlanta, and then I am through; and that is with regard to the Edison Illuminating Co.

Mr. WARREN. Of Boston?

Mr. JACKSON. Yes; the Edison Illuminating Co., which controls the electric-light and power business in Boston and 40 other towns and cities.

My information is that the law of Massachusetts—if I am incorrect in this I hope Mr. Warren will correct me—that Massachusetts has a law which I believe is unique, and that is that it forbids a municipal power plant to sell electricity to a street railway.

Mr. WARREN. No. It is the other way. A street railway can not sell power. We all buy power more or less—

Mr. JACKSON. From the municipally owned plants?

Mr. WARREN. Oh, from the municipally owned plants?

Mr. JACKSON. Yes; I have not struck a similar law in any other State.

The CHAIRMAN. What is the fact, Mr. Warren?

Mr. WARREN. I do not know. There are very few municipally owned plants in Massachusetts.

Mr. JACKSON. There are some few, however, in Massachusetts.

Mr. WARREN. There are a few.

Mr. JACKSON. That are doing well. My information is that the law of Massachusetts forbids a municipally operated power plant from selling power to the railways. That law may have been repealed. It was a law at one time, and I do not believe it has been repealed.

The Edison Illuminating Co. controls the entire electric-light and power business in Boston and 40 other cities.

It began paying 8 per cent dividends in 1900. This increased to 9½ per cent in 1901.

In 1902 it jumped to 10 per cent, where it continued until 1910, when it became 12 per cent per annum, where it has remained.

In addition an extra dividend of 1 per cent was paid in February, 1901.

An extra dividend of 1 per cent was also paid August 1, 1907 to 1909, and one-half of 1 per cent on May 2, 1910.

The capital stock, originally \$20,480,000, was increased to \$22,528,000 June 30, 1915.

Its gross earnings were \$9,235,778 in 1917, against \$4,239,000 in 1907 and 1908.

The company in 10 years' time has paid out approximately the \$20,000,000 in dividends.

Commissioner WEHLE. Has it increased the service during that time?

Mr. JACKSON. Yes.

Commissioner WEHLE. Has it acquired new plants and served new cities since that time?

Mr. JACKSON. I expect it has been growing.

In 1908 the dividends were \$1,690,000. In 1917 they were \$2,703,060, in which year a surplus was earned of \$916,000.

In the published balance sheet of June 30, 1917—this is the interesting thing to me—in the company's liabilities is listed an item of \$17,919,158, premiums on stock, which indicates, if my inference is correct, the company's true surplus.

The company's assets in 1905 were \$20,132,536. In 1917 they had grown to \$56,403,000. The company sells electricity at 10 cents per kilowatt hour.

Mr. WARREN. Mr. Jackson, before you go into those statistics, do you know how that premium is accounted for under the Massachusetts law?

Mr. JACKSON. No.

Mr. WARREN. I will tell you, and it will give you a different view of that company.

All stock of public utilities in Massachusetts has to be issued at relatively its actual value, either at prices fixed—in the case of that company by the gas and electric light commission—or by prices approved by them.

That premium means that for the \$20,000,000 stock there has been paid in thirty million-odd dollars into the treasury of the company. That makes the present 12 per cent dividend a little over 6 per cent. I have some of that stock in a trust estate, and the last stock I subscribed for as a stockholder I think I paid \$215 per share for to the treasurer of the company.

So that while apparently I am getting a 12 per cent dividend, I am merely getting on that stock less than 6 per cent.

Mr. JACKSON. That is actually a surplus, though, is it not, in the company?

Mr. WARREN. No; it is not. It is represented by the property.

Our law takes from the stockholder any benefits called an unearned increment.

If the company is prosperous, so that the stock sells at more than par, the stockholder, while he can subscribe for the new stock, has to subscribe for it at an upset price.

Mr. JACKSON. Was not the original capitalization of the company something like \$20,000,000?

Mr. WARREN. I guess it was \$2,000,000. I don't know. It started, like all the companies, very small. You can see the \$17,000,000 paid in was somewhere around \$200 a share. That has been paid in for a very long period of time.

Mr. JACKSON. You would not say that was an accumulation of earnings?

Mr. WARREN. Not at all. That is cash paid in. The same thing is true of many of our street railways. The little Springfield railway, which I represent, with about four and a half million dollars capital has paid in \$800,000 in premiums. The Boston Elevated stock represents about \$112 a share paid into the treasury.

So that you have to be very careful with the Massachusetts public utilities in figuring their capital stock, because of that premium law.

Mr. JACKSON. The company is selling electricity there at 10 cents, which is 2 cents more than we pay in Atlanta and about 3 times what is being paid over in Toronto.

Commissioner WEHLE. How does the cost of coal compare between Boston and Atlanta?

Mr. JACKSON. We have not the coal proposition in Atlanta. It is an electric-light plant.

Mr. WARREN. Ours is all coal; and the freight rate by water during the war was \$3.50 a ton, as I know to my sorrow, because I was with the Fuel Administration and tried to get it reduced for New England, and could not.

Mr. JACKSON. But in spite of all those conditions, the financial condition of the company improves; its dividends grow.

Mr. WARREN. It pays about 6 per cent on the investment.

Mr. JACKSON. And the dividends have been doubled—for instance, the dividends that were paid—the dividends that were paid back in 1908 were \$1,390,000, and in 1917 they are approximately twice that amount.

Mr. WARREN. What were they paid on in 1908?

Mr. JACKSON. In 1908 the capital stock of the company was \$20,175,336. My recollection is—I am speaking from memory, now. I have not the figures before me—but my recollection is that the premium on the stock there was approximately \$5,000,000.

Mr. WARREN. You ought to figure your dividend rate on the two. Do you see?

Mr. JACKSON. That would make some difference there.

Commissioner GADSDEN. That is the danger, Mr. Jackson, that I was trying to call your attention to some time before, of using figures out of a book.

Mr. JACKSON. Let me call your attention to this, gentlemen, and with this I am through.

To come back to the comparison of the Ontario situation with the situation in Georgia, where we have the water-power proposition, and where we have the reports of engineers to the effect that we could develop our systems in Georgia at less expense than they have been developed in Ontario; and yet the average rate now in Toronto is 2½ cents per kilowatt-hour, while in Georgia it is 8 cents—in Atlanta—running all the way up to 12 cents in these various cities.

The difference—what Ontario has saved by the institution of her public ownership of her electric-light plants would, with interest at 5 per cent compounded, in 30 years' time, in the State of Georgia, for 45 towns, amount to something like \$186,000,000. That is simply the difference in the rate; and the rate in Toronto, the rate in Ontario, is figured on a basis so that at the expiration of 30 years they will not only have enjoyed this reduction in the rate, but they will have paid into their fund for depreciation, the amount which they have invested in their plant, so that they will have on hand enough to duplicate their entire system; making the saving in the municipal plants of Ontario, as compared with the privately owned plants of Georgia, something like \$286,000,000 in 30 years' time.

The CHAIRMAN. What conclusion do you reach from this presentation?

Mr. JACKSON. I come to this conclusion, Mr. Chairman, and that is that the public at present are not getting the benefits of the profits which can be made from the sale of current; that ultimately public ownership is the only solution of it, because of these intercompany relationships that you can not get away from so long as private ownership continues; and this additional fact: We are paying, at present, in Georgia, \$801,000 a year in dividends on the stock of the Georgia Railway & Electric Co., which represented originally a cash investment, if my information is correct, of approximately \$600,000. The dividends that are paid out each year represent more than the cash that went into the stock. That is on the electric company, the Electric Light & Railway Co.; that company is leased to the Georgia Railway & Power Co. The Georgia Railway & Power Co. has \$27,000,000 of stock which they hope to have dividends on, eventually. I think the first preferred calls for 6 per cent dividend. That is \$2,000,000.

Commissioner WEHLE. Cumulative?

Mr. JACKSON. Yes; that is my recollection.

Commissioner WEHLE. You are not sure?

Mr. JACKSON. There is \$10,000,000 preferred stock, which calls for 4 per cent dividends. Then, underneath that, there is \$15,000,000 of common stock.

Now, those people expect dividends on that stock, ultimately.

Commissioner WEHLE. Has that stock all been issued?

Mr. JACKSON. That stock has all been issued. They are working toward dividends. These rate raises which they are asking for have dividends finally in view.

When they get to paying the dividend which is called for by their preferred stock, and get their dividends to 6 per cent on their common stock, the people of Georgia will be paying out to that one company in dividends \$2,200,000-odd each year on securities that do not represent one red cent of real money.

I think the best thing that Col. Roosevelt ever said, among the many good things that he said, was shortly after he came out of the canebrake on one of his notable bear hunts down there. He said that the situation of the man with watered stock in his hands was very much like that of the man with a counterfeit dollar. We sympathize with the man with the counterfeit dollar, but our sympathy does not

make his dollar good. And no solution of this problem which goes to the making of these millions and millions and millions of watered securities that are laced over this country will, for one minute, hold water.

Commissioner BEALL. Do you know that the Canadian people did not tell you, apparently, that all the cities that the Hydro-Electric commission furnishes with power issue their own bonds to pay for the transmission lines?

Mr. JACKSON. Yes, each one of them; and the remarkable thing about it is, Mr. Commissioner, that Sir Adam Beck gave his evidence here in a pamphlet that was given before the Water Power Committee of Congress that during the whole course of the war, in the years 1917, 1916, 1915, 1914, and 1913—each one of those years—the rate was reduced in the majority of the cities of Canada, because they found that they were taking in money too fast, and some of the villages had already wiped out their debts.

Commissioner BEALL. But did he tell you they issued other bonds in place of them, which they are still doing? It is quite a problem as to how they are going to market them.

Mr. JACKSON. They are issuing bonds to develop as they go ahead. In other words, you have to issue the bonds—

Commissioner BEALL. But he did not tell you that when the bonds mature they issue others to pay them?

Mr. JACKSON. The difference is this—I do not know how it is with the securities of Canada, but I know that the securities of Atlanta, when they are sold, are sold at par. There is not a loss of \$150 to \$200 on each bond sold.

Commissioner BEALL. I can tell you that most of the Canadian securities which you refer to have been sold at quite a good deal below par.

Mr. JACKSON. That may be true in Canada. It is not true on this side of the line. We want a plant which will cut out that loss. We want a plant which will cut out the dividends on watered securities.

Mr. Chairman, just leave this figure in your mind, and I am through: This \$801,000 in dividends on the Georgia Railway & Electric Co., which was the company that originally controlled the situation in Georgia, in Atlanta—in 30 years' time this payment amounts, with interest on it at 5 per cent, to \$53,000,000 in dividends on watered securities that the people of Atlanta and Georgia will be called on to pay.

That \$53,000,000 would buy the entire stock of the Georgia Railway & Power Co., the Georgia Railway & Electric Co., and leave money in the treasury of the city of Atlanta, if they would issue bonds on that proposition. That is simply on the savings of the dividends which are now being paid; and those dividends are being charged up now, as a fixed charge against the city of Atlanta under one of these leases, leased to the Georgia Railway & Power Co. And the only solution, as we see it, is in municipal ownership, and the cure, in the meantime, is an examination of these contracts between these companies and an elimination of the many companies that are dealing in these securities.

I thank you gentlemen for your patience.

Mr. WARREN. May I just put in these documents for the commission at this time? It will take a very short time.

The CHAIRMAN. Yes.

Mr. WARREN. I want especially to call these to the attention of Commissioner Wehle, because he asked if the American Electric Railway Association did anything to call to the attention of its members the improvements in the art and possible economies and the results of various inventions. I want to show that the association is active along this line.

I wish to put in first the advance reports to the 1919 convention. These reports cover the report of the committee on zone system, the committee on valuations, the committee on power distribution, report of the joint committee on specifications for electric-light, power-supply and trolley lines crossing steam and electric railroads, also the committee on power generation, the committee on buildings and structures, committee on way matters, committee on equipment, committee on standards, committee on code of traffic principles, joint use of track and terminal facilities, one-man-car operation, collection and registration of fares.

Those are advance reports in order that the members may post themselves on the reports, and be prepared for the discussion of the subjects in the various sections of the association—the association holding its meeting very much as the Bar Association does, Mr. Chairman; both a general meeting and a meeting of engineering, accounting, traffic, and other departments of the industry.

The CHAIRMAN. They may be filed, but not printed.

Commissioner SWEET. Mr. Wehle is supposed to read them all though?

Mr. WEHLE. Before I begin to read them—your filing of these documents is in response to a question that I asked several weeks ago, is it not?

Mr. WARREN. You asked it of someone early this week, as to whether the Electric Railway Association did cover any of this sort of work.

Commissioner WEHLE. Several weeks ago, in a hearing in July, I think, I recollect an inquiry as to whether or not the American Electric Railway Association was officially taking cognizance of the socially and economically pernicious results of the issuance of stock on fictitious valuations, or the selling of stock at great discounts at the treasury, and whether or not they were taking steps in such States as laws did not exist effectually checking such abuses, to have them checked voluntarily by cooperation between the electric-railway managers and the bankers.

Mr. WARREN. I had forgotten that question.

Commissioner WEHLE. That was the chief purpose of the question.

Mr. WARREN. This question you addressed to somebody in connection with economies in operation this week.

Commissioner WEHLE. Yes.

Mr. WARREN. But as to the other question, in answer to that I should like to put in the Code of Principles, which I will not take the time to read, of the convention, adopted at its annual convention in 1914, in which it recommended the State control, the commission

control, of public utilities. That is in the yearbook of the American Electric Railway Association, 1914-15.

The CHAIRMAN. At what page?

Mr. WARREN. At the very beginning, after the table of contents.

Then I want to put in also a copy of the Engineering Manual, which is a loose-leaf manual supplied to all of the member companies, containing the matter on various subjects sent to the members from time to time during the course of the year, together with a binder so that it may be kept in permanent form.

I also want to put in as a sample the proceedings of the association at its annual convention covering the report not only of the general meetings, again like the general meetings of the bar association, but the specific reports of the various department—accounting, engineering, traffic, etc.

I also want to put in Prof. Doolittle's book, which is the result of a study ordered by the association, printed by the association, and distributed to all of its members. Incidentally, one member wanted to know what the association was doing putting out books of logarithms; but I think others got more benefit from the book than that.

Here is a typical bulletin: "Present situation on skip-stops." Those are issued frequently on subjects of interest.

Finally, I want to introduce copies of Aera for a year, which is a magazine published by the association and sent to the members, containing the latest information and suggestions of policy and other matters relating to the industry.

Commissioner WEHLE. Those will be very useful, I am sure.

Mr. WARREN. I, at least, do not want the commission to think that our activities are confined only to attending hearings.

This last report is a report of the committee on social relations.

The CHAIRMAN. Does that conclude your testimony?

Mr. WARREN. Yes; that is all.

The CHAIRMAN. Mr. Ogburn, have you anything that you desire to present to us before we go into executive session?

Mr. OGBURN. Yes. There are two or three matters, Mr. Chairman.

The CHAIRMAN. How long will it take to present them?

Mr. OGBURN. I think it will take only four or five minutes.

The CHAIRMAN. Is it something that we may simply order printed in the record?

Mr. OGBURN. Yes.

The CHAIRMAN. You will please have it done that way then.

Mr. OGBURN. The first is a letter from Stone & Webster, addressed to you as chairman. I believe you first thought that should be read to the commission. I can have it copied into the record and furnish copies to each member.

The CHAIRMAN. If you please.

The letter is as follows:

OCTOBER 1, 1919.

HON. CHARLES E. ELMQUIST,

Chairman Federal Electric Railways Commission,

Washington, D. C.

DEAR SIR: I am taking the liberty of presenting to you certain figures recently prepared, which I hope may be of interest and use to your commission in connection with the investigation which you are making of the street-railway situation.

The idea seems to be prevalent in many quarters that the street railway has seen its day of greatest usefulness and that the automobile is gradually driving it out of business and constantly decreasing the public demand for street-railway service. Hearing this point of view frequently expressed, we attempted recently to see what the real facts were with reference to the particular properties which we operate.

The automobile as a competitor has come into existence practically within the last decade. We therefore had figures prepared showing the population of the various cities in which we are interested in June, 1919, and in June, 1909, and calculated the earnings per capita for the 12 months ending on these dates. I inclose herewith a sheet on which these figures are tabulated. From this sheet you will see that there has been an average increase in population in these various cities during the 10-year period of 42.3 per cent, and the street railways have not only gained in gross earnings in proportion to the increase in population but have actually made an additional average increase in earnings per capita of 26.9 per cent.

This result was such a surprise to us that we were inclined to question the accuracy of the figures, and have attempted to check them up in various ways. It occurred to us that possibly the increase in earnings per capita had occurred almost entirely during the first 5 years of the 10-year period, when the growth of the automobile industry had been slow and there might be no increase per capita during the more recent years. We therefore had figures prepared of passenger earnings per capita for the 12 months ending June 30, 1914, and these are given on a separate sheet, which is also inclosed. You will see from this that the average earnings per capita in 1909 was \$5.32; in 1914, \$6.14; and in 1919, \$6.75. The gain was somewhat greater during the first half of the decade than during the last half, but during the last half jitney competition developed, as distinguished from the private automobile, and this has affected the showing of a number of the companies. Take, for example, the Houston Electric Co.; the earnings per capita increased during the first five years from \$8.90 to \$11.71, and during the second five years decreased from \$11.71 to \$10.46. During the latter period active jitney competition developed, and there are still in operation in this city approximately 150 jitney cars. If these were discontinued and the street railway was affected only by the private automobile, there would undoubtedly have been a material increase in earnings per capita during the second five-year period.

Another possible error is in the estimated population. We attempt each year to estimate the population served by our various properties. This estimate is in each case based on all the information which we are able to obtain locally, but between regular census periods is necessarily unreliable. Each 10 years when the United States census is taken, we correct our figures in accordance with the census report. We find that in nearly all cases the United States census gives a somewhat lower population figure than is obtained from local estimates, so our population figures are usually reduced slightly at 10-year intervals when the United States census figures are published. In making up the figures on the inclosed sheet we have corrected the population for 1909 to accord with the census figures taken by the Federal Government in 1910, this resulting in a slight reduction in practically all of the cities over the figures which we actually estimated in the year 1909, and in several cases in quite a material reduction. The 1919 population figures are based on the local estimates; there is every reason to suppose that these estimates are too high rather than too low and will be reduced when the United States census is taken in 1920. This means that the comparison of earnings per capita is conservative and that the actual increase in earnings per capita is probably greater rather than less than that indicated by the figures.

Another source of error is increases in rate of fare. Some of the companies have increased their rate of fare during the past year, and a benefit from this increase has been obtained through part of the year ending June 30, 1919. To correct for this we had further figures prepared eliminating the question of income and showing the actual number of pay passengers carried. I also inclose copies of these figures, from which you will see that the average number of rides per capita has increased during the decade from 108.6 to 135.0 or 24.3 per cent.

If these figures are a fair indication of what has taken place in other cities (and I know of no reason why they should not be), the street railway is by no

means a dying institution, nor has it been seriously affected by the introduction of the private automobile; on the contrary, the demand for service is materially greater than it has ever been before and is still growing at a rapid rate. It would appear that something has been and is stimulating the street-railway business; possibly the automobile itself has helped in this direction. People may be acquiring to a greater extent than ever before the riding habit, and may be more and more inclined to move about and spend less time in their own homes or with their immediate neighbors. The moving picture is probably also a factor in the situation. But whatever may be the cause, the fact seems pretty clear that the demand for transportation service is still growing apace.

This fact, I think, is pretty generally misunderstood; in fact, I am free to confess that we ourselves were surprised to see the extent of the increased demand for service.

Some little time ago we were attempting to work out in the city of Dallas a new street-railway franchise and in our negotiations were told by the mayor of the city that we were not justified in attempting to obtain protection necessary to enable us to earn a fair return on our investment. It was, he said, our misfortune that we were in a business which had seen its best days, but that this was not a matter for which the public was responsible, and that we should simply look happy and take our loss as anyone else would do who had made a bad venture. If the inclosed figures correctly represent the situation, this point of view is absolutely wrong. The industry is booming and not going backwards in its demands for service, and our only difficulty is that we are prevented from readjusting our income to adequately meet increased costs of labor and materials.

Take this group of properties of ours; they are on the average doing more business per mile of track, more business per car-mile and more business per capita than they were 10 years ago. The public needs the service, demands it in greater volume than ever before, is calling on us constantly for extensions of track and increased operation of cars; and with all these conditions which in ordinary times would make for abnormal prosperity the companies are without credit and are unable to borrow money or sell securities to reasonably meet the public demand. The one sole trouble is increased cost of labor and material and inability to promptly readjust the rate of fare. With an increased rate of fare commensurate with the increased cost of labor and materials, the entire situation would, in my judgment, be cured. I recognize fully the fact that riding will decrease temporarily with an increased rate of fare, but I have been studying the effect of fare increases for several years, and during the past year have followed the results of such increases very closely. The more information I obtain, the more strongly am I satisfied that the decrease in riding is a purely temporary effect which will last only for a limited period in most cases. There are a few street railways, usually suburban or interurban lines, which have been built in territory having insufficient population to support the service. Such roads should have never been built and the difficulties can not be cured through an increase in fare. But these represent only a very limited number of cases out of the total. In most cases there would appear to be a constantly increasing demand for street-railway service and the only thing needed to enable the roads to meet this demand is an increased fare commensurate with increased cost of labor and materials.

Hoping that these figures may be of interest to you and your committee, I remain,

Very truly yours,

HENRY G. BRADLEE.

2040 PROCEEDINGS OF FEDERAL ELECTRIC RAILWAYS COMMISSION.

MEMORANDUM.

STONE & WEBSTER, MANAGEMENT DIVISION,
Boston, Mass., September 5, 1919.

H. G. BRADLEE, Esq.:

In accordance with your request we give, herewith, tabulation showing comparison of railway population served and passenger earnings per capita at the present time and 10 years ago, covering those of our companies for which we have information for both dates:

Companies.	Estimated population served by railway department, year ending June 30—		Passenger earnings per capita, year ending June.	
	1909	1919	1909	1919
Baton Rouge.....	14,500	21,700	1.66	3.91
Cape Breton.....	27,000	29,600	2.82	4.82
Columbus Railroad.....	35,000	40,750	3.36	5.00
El Paso Electric Railway Co.....	50,500	100,700	5.73	5.79
Galveston Electric Co.....	37,500	40,500	8.03	11.13
Houghton Traction Co.....	73,400	68,000	4.01	4.32
Houston Electric Co.....	91,600	161,500	8.90	10.46
Jacksonville Traction Co.....	59,000	95,000	7.18	9.80
Key West Electric Co.....	19,200	22,050	3.61	4.59
Northern Texas Traction Co.....	171,000	262,300	7.01	9.55
Paducah Traction Co.....	24,200	26,500	4.39	5.0
Pensacola Electric Co.....	26,000	36,600	5.64	7.7
Ponce Railway & Lighting Co.....	34,700	40,200	1.13	1.36
P. S. E. Railway, Inter.....	324,000	463,500	1.92	2.07
Pd. Sd. Int. (Everett).....	27,100	36,000	6.10	15.88
P. S. T. L. & P. (Bellingham).....	23,200	30,500	6.65	6.85
Savannah Electric Co.....	71,000	88,500	5.49	8.25
Tacoma Railway & Power Co.....	90,000	112,400	9.87	12.48
Tampa Electric Co.....	48,900	70,000	7.61	9.20
Average.....	65,700	93,500	5.32	6.75
Per cent increase.....		42.3		26.9

¹ Decrease.

The following is a list of companies which have made increases in city fares during this period, with the dates and amount of increase:

Company.	Date of increase.	Increase (cents).
Galveston.....	Oct. 1, 1918	5 to 6
Paducah.....	June 6, 1919	6 to 5
Bellingham.....	July 1, 1918	5 to 7
Tacoma.....	Nov. 4, 1918	5 to 6
	July 8, 1918	5 to 7

The Cape Breton, Northern Texas, Pensacola, and Everett companies include interurban lines, which affects somewhat the comparison of number of passengers per capita with passenger earnings per capita.

MEMORANDUM.

STONE & WEBSTER, MANAGEMENT DIVISION,
Boston, Mass., September 10, 1919.

H. G. BRADLEE, Esq.:

Supplementing our memorandum of September 5, we give herewith figures for the same companies,¹ showing number of passengers carried, not including transfers, per capita. As a matter of interest we also show, by companies, the

¹ Excluding P. S. E. Railway.

percentage increase in these figures for the 10-year period compared with the percentage in passenger earnings per capita:

Companies.	Number of passengers carried, not including transfers, per capita, year ending June 30—		Percentage increase year ending June 30, 1919, over year ending June 30, 1909.	
	1909	1919	Number passengers carried per capita.	Passenger earnings per capita.
Baton Rouge.....	33.5	79.8	138.3	135.4
Cape Breton.....	57.3	92.4	61.3	71.0
Columbus Railroad.....	71.2	104.0	46.1	48.8
El Paso Electric Railway.....	118.5	120.8	1.9	1.0
Galveston.....	160.0	208.2	30.1	38.6
Houghton Traction.....	80.6	86.5	7.3	7.7
Houston.....	186.0	215.0	15.6	17.5
Jacksonville.....	147.5	198.0	34.2	36.5
Key West.....	73.1	92.9	27.1	27.1
Northern Texas.....	99.8	128.0	28.3	36.3
Paducah.....	90.8	77.5	14.7	15.9
Pensacola.....	103.8	160.0	54.2	37.4
Ponce.....	24.7	27.5	11.3	20.3
Pd. Sd. Int. (Everett).....	99.7	110.0	10.3	13.6
P. S. T. L. & P. (Bellingham).....	156.0	133.0	16.8	3.1
Savannah.....	114.8	169.0	47.3	50.3
Tacoma.....	206.0	223.0	8.3	26.5
Tampa.....	115.0	118.5	21.6	20.8
Average.....	108.6	135.0		
Per cent increase.....	24.3			

¹ Decrease.

	Passenger earnings per capita.
Baton Rouge	2.75
Cape Breton	3.63
Columbus Railroad	4.29
El Paso Electric Railway Co.....	6.63
Galveston Electric Co.....	11.30
Houghton Traction Co.....	4.17
Houston Electric Co.....	11.71
Jacksonville Traction Co.....	9.70
Key West Electric Co.....	3.12
Northern Texas Traction Co.....	9.16
Paducah Traction Co.....	5.33
Pensacola Electric Co.....	5.04
Ponce Railway & Light Co.....	1.44
P. S. E. Railway Inter.....	1.24
Pd. Sd. Int. (Everett).....	5.78
P. S. T. L. & P. Co.....	6.01
Savannah Electric Co.....	6.79
Tacoma Railway & Power Co.....	9.52
Tampa Electric Co.....	8.98
Average	6.14

Mr. OGBURN. We invited to appear before us Mr. Lawson Purdy, who was prevented from testifying but who has written that he would send a statement to be submitted to the commission dealing with the subject of special tax assessments to finance extensions of street railways. Mr. Purdy, as you know, is quite qualified to discuss that subject.

At the suggestion of Commissioner Beall we are making a digest of the franchise of the city of Montreal. Commissioner Beall fur-

nished copies of that franchise, which has certain features possibly better than the Cleveland service-at-cost plan franchise.

There was invited to appear before the commission this week Mr. Russell Robinson, who is a manager of a small line running from Keene, N. H., to Marlboro, Mass. Commissioner Wehle had a talk with him, and at his suggestion we invited him to attend, but we learn that his health prevents his attendance. He has received permission to submit a statement that will show his experience in increasing his fare from 5 cents to 8 cents and then reducing it to 4 cents. The reduction to 4 cents resulted in operation at a profit, as I understand. Whether he changed the zones or not I do not know.

The receiver of the Birmingham company has sent in a full statement of the operations under his receivership to submit here.

Also the counsel for the Jacksonville (Fla.) Traction Co. has sent in a full statement.

The mayor of Camden, N. J., has had the city solicitor of Camden to submit to you a statement relative to the operations of the new zone fare in Camden. This statement is so very interesting that I think I should have copies of it made and furnished to each of the commissioners. It not only criticizes the particular plan that was put into effect, but it offers some very pertinent constructive suggestions for a better zone fare. They take the view that they are not opposed to a zone fare, but to this particular one.

The statement is as follows:

CAMDEN, N. J., October 1, 1919.

FEDERAL ELECTRIC RAILWAYS COMMISSION,
Washington, D. C.

GENTLEMEN: Replying to the recent communication of your executive secretary, addressed to Hon. C. H. Ellis, mayor of Camden, allow me to say that the zone plan of collecting fares in New Jersey seems to be a complete failure. Of course, we can only speak with certainty for the city of Camden and vicinity. The fact that both political parties in this State condemned the system in their respective platforms simply expresses public sentiment.

We do not want to be understood as saying that a zone system is not theoretically a proper system, or that a proper zone plan could not be made successful. What we do unhesitatingly say is that the zone plan inaugurated here is a complete failure. Our experience is that within the limits of the city of Camden, possibly a 3-mile limit from our ferry terminal, which is the gateway of the city, the present system has caused an average delay of 12 to 15 minutes in the headway of the various car lines. The chief delay is in the making of change on the pay-as-you-enter plan. If the nickel fare had been a part of the system, of course, the making of change would have been expedited, but the chamber of commerce here and the city officials have recommended two propositions which might be used in connection with a proper zoning system:

First. At the heavy loading points, the main one of which is our Pennsylvania Ferry, there should be two or more ticket-selling booths, to permit passengers to secure tickets in advance of entering the cars, so that all they would have to do would be to hand the ticket to the conductor or drop it in a slot. This would tend to a speedy loading of every car. We, however, made special note that it would be of no avail to open up such ticket booths unless strip tickets were sold at a reduced rate over the normal fare. For instance, if the normal fare were 6 cents, six strip tickets should be sold for 25 cents, or some similar reduction. This would furnish an inducement to passengers to buy in advance of entering.

We have studied the problem somewhat and have inquired of railroad officials who have had considerable experience in dealing with traffic conditions of this kind; and the consensus of opinion was that transportation companies would gain in a number of directions on the sale of strip tickets.

(a) They gain by selling tickets at wholesale, the overhead cost of selling being thus reduced.

(b) They gain the use of the money, because many of the tickets will be a week or more in being used.

(c) Many tickets will be lost or destroyed.

(d) It encourages the riding habit. A passenger doesn't think he is spending money when he is dropping in a ticket. He will therefore ride more frequently.

There may be other recommendations for such tickets, but this is sufficient to give our ideas on the matter.

Second. We recommended commutation tickets for the suburbs. Our problem here is not only to supply the residents of the city, but we have 5 or 6 thriving suburbs, all of which have steam-railroad connections.

When the present zoning system was put in operation it was found that starting with the 3-cent fare, the increase at the distance of about 14 miles, on a 2 cents a mile increase, ran up to about 30 cents, while the steam-railroad company, for a similar distance, was selling a commutation ticket for about 15 or 16 cents, including 2½ cents for ferriage to Philadelphia; so that when it was found that nearly all the suburbs had the same steam-railroad rates, almost half what the new trolley zone rates were, the suburbanites immediately forsook the trolleys and bought commutation tickets on the steam railroads.

Third. It might have been thought that the 3-cent riders would have hailed such a system with joy. The contrary seems to have been the practical result. So much for theory against fact. Some of the 3-cent riders boycotted the trolleys out of sympathy, refused to ride because they would rather pay a nickel than wait for change, but most of the riders in the 3-cent zone would naturally walk.

From a practical standpoint, we should say that there is not much travel in in 3-cent zone of 1 mile, except in large cities where the population is concentrated. Whatever the reason, even the 3-cent zone has not been popular.

Generally speaking, we think the main cause for the failure of the system within the city limits was because of the many objectionable features attending its inauguration.

Aside from those enumerated, so-called pull pens were provided—that is, shed structures surrounded by fences, with turnstiles for entrance and exit. For some reason or other, the people were against the use of these pens and resented their installation.

We think also the conductors and motormen objected to the delays and other complications of the system. We have heard that it was claimed on behalf of the company that some employees objected because the system prevented speculations. On the other hand, some of the employees said that it furnished special inducements and special opportunities for speculations.

Our ferry company handles, at the Pennsylvania Terminal, over 30,000,000 people annually. That's as many as the Broad Street Station, Philadelphia. It is the gateway for all south Jersey. A large number of these passengers go through the two ferry entrances, one on the south side and the other on the north side of the street. There is a ticket-selling booth about 15 feet east of each ticket collector. Most people have purchased tickets in advance, and they simply tear one off and drop into receptacles without stopping for hardly a fraction of a second, so that there is no congestion even in the busiest hours. There is no making of change except at the ticket-selling booths, and the selling of tickets is distributed over a longer period of time because all people do not run out of tickets at the same moment. This tends to avoid congestion even at the ticket-selling booths at the heavy loading hours. Such a system, in our opinion, would be ideal for the local trolley company.

We should be glad to furnish any further information. Trusting, however, that this will give you all that is desired, I am,

Yours, very truly,

EDWIN G. C. BLEAKLY, *City Counsel.*

The CHAIRMAN. We also received a letter from Mr. O. O. Calderhead, rate expert of the Washington Commission, which deals with the question of jitney competition. I believe we should have that made a part of the record, as it is a very interesting document.

Mr. OGBURN. Mr. William P. Burr, corporation counsel of New York, representing Mayor Hylan, has sent a communication ask-

ing that it be put into the record for the purpose of bringing the testimony which he gave on August 14 up to date. In other words, there have been recent happenings in New York during the past six weeks of such moment that his testimony, given in the midst of those happenings, remains incomplete unless this statement is put in. This is a brief summary of those happenings:

NEW YORK, September 25, 1919.

MR. CHARLTON OGBURN,
Executive Secretary Federal Electric Railways Commission,
929-930 Southern Building, Washington, D. C.

DEAR SIR: I beg to acknowledge the receipt of your letter of September 20, 1919, requesting that the financial data in regard to the railway companies in this city given by me in my testimony before the commission on August 14 be checked up, and also requesting a brief statement of the developments in the traction situation since such testimony was given.

In reply I would say that the figures as to the capital stock, earnings, dividends, etc., of the railways in this city as contained in the minutes of the meeting of the commission held August 14, pages 3790-3898, are substantially correct.

In regard to the developments in the traction situation since my testimony was given, I would refer to the following:

A few days after I appeared before the commission, on August 17, to be exact, the elevated and subway railways operated by the Interborough Rapid Transit Co. were tied up by a strike of the employees, who demanded a 50 per cent increase in wages and various other concessions. There is evidence on which to base the allegation that this strike of the employees was part of the campaign now being waged by the railway companies for an increase in their rate of fare. On the request of the mayor of this city, the extraordinary grand jury of New York County has been conducting an investigation into this matter, which investigation has, I believe, not yet been concluded. The strike lasted for two days, as you no doubt have learned from the press, has been settled through the intervention of the mayor and other public officials of this city, on the basis of an immediate increase of 25 per cent in wages and arbitration on the question of an additional increase and other points contended for by the employees.

On August 20 the receiver of the New York Railways Co., Mr. Job Hedges, with the consent of the Federal court, voluntarily increased the wages of the employees of the system over which he has control 15 per cent, which was in addition to the 10 per cent increase granted a few days previously.

On August 28, notwithstanding his statement made to your commission that his power to grant fare increases in the city was restricted by reason of the franchise contracts under which the railway companies were operating, Commissioner Nixon authorized the New York & North Shore Traction Co., operating in the Borough of Queens, to put into effect a zone fare running from 6 cents in some cases to 11 cents in others. The franchise under which this company operates, and which was granted by the city under constitutional authority, expressly prohibits the company from charging more than a 5-cent fare within the city limits. The mayor of this city immediately challenged the power of the commission to grant this increase, and legal proceedings are about to be instituted to have this order reviewed by the courts.

Shortly after Commissioner Nixon made the order in the North Shore case, the Manhattan & Queens Traction Corporation, encouraged no doubt by the position which the commission took in that case, applied for an increase of its fare. The commission ordered a hearing on that application. As this company was also restricted to a 5-cent fare by its franchise and it was plainly the intention of the commission to attempt to release the company from its fare obligation, as it had the North Shore Traction Co., the city immediately took legal steps to prohibit the commission from proceeding further with the case. An order to show cause was obtained in the supreme court which stayed the commission pending a determination as to its power to abrogate the franchise contract. The city relies on the Quinby case, which I referred to in my testimony before your commission, as ample authority for the court's interference with this attempt on the part of the public-service commission to act beyond its jurisdiction. Practically all the railway companies operating in the metro-

politan district have joined in the attempt to invalidate the city's contract rights and have asked leave to file briefs in this case.

The failure of the surface-railway companies up to this time to escape the obligations of their franchise contracts with the city's consent has prompted them to take another step deserving of nothing but public condemnation. Through its receiver and with the consent of the Federal Court the New York Railways Co. has abandoned operation of four important cross-town lines. The Third Avenue Railroad Co., which is not in a receiver's hands, had previously shown the way by the abandonment of three lines, one of which was a very important line connecting the Borough of Queens with the midsection of the Borough of Manhattan. In no case, however, have the companies taken any steps or shown any intent to surrender the franchises for the various routes which they have abandoned, and it is evidently their purpose to retain the franchises until such time as it may be their pleasure to resume operations. The city will take immediate steps, however, to frustrate this illegal purpose.

Meanwhile measures have already been taken by the city for giving transit service to the traveling public which has been ignored and inconvenienced by the railway companies. Bus service has already been installed on a number of cross-town routes, which, while temporary in its character is giving adequate and, in many cases, better service than the railway companies have given by means of the storage-battery cars which they previously operated. It is believed that the success of this experiment in urban transit points the way to a permanent solution of the problem which now confronts the city by reason of the breakdown of the surface-railway system.

On September 22, 1919, the city applied to the public-service commission for a rehearing on the order which the commission issued on July 17, 1919, permitting the surface-railway companies in the Brooklyn Rapid Transit system to impose a transfer charge of 2 cents. This order was granted by the commission without any adequate proof as to the value of the company's properties or the necessity for imposing this additional burden on the public. As I stated in my testimony before your commission, the revenue of the surface railways of the Brooklyn Rapid Transit system was considerably more than a 7 per cent return on the fair value of the properties estimated at \$50,000,000 between 1913 and 1918. For the year ending June 30, 1919, its revenue, while considerably lower than for the previous six years, showed a profit of 3.2 per cent. Notwithstanding this splendid showing even during the war period, the commission, without investigating fairly and impartially into these questions, permitted the company to increase its fares. Not only that, but the commission ignored the rights of the city and of the public under the existing franchise contracts, no attempt at all having been made by the commission to examine into this matter or to ascertain whether its order would impair the obligations of these contracts.

Yesterday the Federal court, acting through Judge Mayer, separated the Ninth Avenue Railroad from the New York Railways system and directed its return to its original owners. The court also authorized the discontinuance of the transfer privilege between the Eighth Avenue Railroad line and the lines of the New York Railways system. It will be remembered that some time ago the Eighth Avenue line was severed from the New York Railways system, but Judge Mayer permitted it only on condition that transfers would be exchanged between the two systems. This direction on the part of Judge Mayer was intended to carry out the purpose aimed at by Commissioner Nixon when he permitted the lines of the New York Railways system to charge for transfers. This purpose, as stated by Mr. Nixon, was to "preserve the system," and so insure to the public transfer privileges between all lines of the New York Railways system for a maximum of 7 cents. The action of Judge Mayer yesterday, however, contradicts Commissioner Nixon's stated purpose and eliminates whatever excuse there may originally have been for the additional transfer charge.

It is believed that the above is a fairly comprehensive statement of what has occurred in this city since August 14. If you desire any further information in regard to the matters above outlined or any other questions affecting the traction situation in this city, I will be glad to furnish it.

Very truly, yours,

WILLIAM P. BURR, *Corporation Counsel.*

And Commissioner Nixon is also submitting a statement of his side of those happenings.

The CHAIRMAN. They may be filed.

Mr. OGBURN. One other matter. A good deal of attention has been given, or at least several references have been made by witnesses, to the operation of the tramways of Great Britain. Mr. Walter Jackson and Mr. Wilcox particularly referred to the success of the zone fare on the tramways in Glasgow and other cities. Mr. Wilcox prefaced his testimony by the statement that Sir Eric Geddes had made the statement that the tramways in Great Britain were earning 7 per cent net on their investment.

The matter interested me to the extent of trying to find out more about it, and I have prepared a statement dealing with the situation in Great Britain, and I would like to make copies of this and submit it to the commissioners.

The pertinent fact is that the tramways of Great Britain are earning 3 per cent on their entire investment instead of 7 per cent.

The CHAIRMAN. Do you want that as part of the record?

Mr. OGBURN. Yes. They are asking almost universally for an increase in fare and they are expressing uniform dissatisfaction with the zone fare and expressing their preference for the American plan and saying that the zone fare, among other things, causes congestion in cities; and the fact is, they go quite extremely into the situation.

The statement is as follows:

STUDY AND DIGEST OF DISCUSSION AND PAPERS READ AT MEETING OF TRAMWAYS AND LIGHT RAILWAY COMPANIES OF THE UNITED KINGDOM.

There are two criticisms which apply generally to tramways in the United Kingdom. First, they fail to produce an adequate financial return to their proprietors; second, in many respects they fail to give the community all the benefits of which they are capable. It is an example of cause and effect—what happens when a community is working a strangle-hold on an industry.

These criticisms apply in greater and lesser measure alike to the tramways owned by municipalities and to those owned by companies. These failures are the result of faulty legislation to a large extent. This legislative handicap weighs with different force upon company and municipal tramways, but both are affected; and the remedies have not so far been within the power of anybody but Parliament itself. The controlling bodies have a considerable responsibility for the failures of the tramways and have it within their power to bring about better results.

An insufficiently remunerated industry can not provide the community with the full service of which it is capable under more encouraging conditions. A prosperous industry can accumulate funds available for the improvement and extension of its activities or can attract the necessary capital for such purposes. A starved industry can not do this. Municipal corporations can obtain loans upon favorable terms because they offer to investors the security of the rates, but they are naturally loth to increase municipal indebtedness for the extension of services which are not likely to be remunerative unless such services are obligatory. Tramway companies can not obtain capital for extensions unless they show that their existing enterprise is giving a reasonable return.

In a starved industry the management and all those in responsible positions are always conscious of a pinched feeling and this makes them averse to trying changes which they know will have temporarily adverse effect on the net receipts, although they believe that they would eventually give good results. Not only do the management and those in responsible positions feel the pinch; it reacts on all the employees. It is impossible for a harassed industry to make its conditions of service as attractive as those of a prosperous industry. The tramways have been unable to make improvements

which may take some years to become remunerative. One can not expect a starved industry to venture on these improvements.

While a number of the municipal tramway systems show good financial returns, they are nevertheless starved, because the bulk of their net receipts are appropriated in aid of the rates, instead of being utilized in the improvement of the service.

Mr. McElroy, in his report on the Manchester tramways, showed that the extensive improvements recommended could be financed from the tramway net receipts if the city council would refrain from appropriating £100,000 per annum for the benefit of the borough fund.

For a service to be remunerative the sums charged for it must cover the whole of the cost, including capital charges, and provide a reasonable margin. The charges made for the service ought to be equitable; that is, each passenger should pay his fair share of each of the items of cost involved in carrying him. In transport service some of these items of the cost of service are proportional to the distance a passenger is carried. Some of them are more nearly represented by a fixed amount per passenger. If, therefore, one can ascertain what these costs amount to per passenger in any given case, the result gives a sum which must be exceeded by the fares charged for the shortest journey. The fares for long journeys should be increased over this minimum in proportion to the distances.

The result of such a scheme of fares is that every passenger pays his fair share, and that the longer journeys are relatively cheaper than the short ones; also that the traveling expenses consequent upon living at a greater distance from the place of employment are less than proportionate to the greater distance. This last effect would be of immense importance in making tramways of greater service to the community.

Taking "standing charges" to include all the costs of having the system equipped and ready to meet the traffic, and the "running costs" as those proportionate to the passenger-miles, a figure can be distinguished for standing charges which can, with entire fairness, be spread equally over the whole number of passengers. Taking all tramways collectively, a far larger number of passengers are carried at minimum fare than at any others. The board of trade's report for the year 1913-14 shows that the average receipts per passenger were 1.105d., providing that the number of passengers at 1 penny (the minimum fare on the majority of systems) is far in excess of those at higher fares. In Glasgow during the year 1918-19 the minimum fare of one-half penny was paid by 63 per cent of the total number of passengers.

(There followed a table of tramway expenses for the year 1913-14.)

From the board of trade report for 1913-14, it is seen that the net yield on the capital invested was only 3.03 per cent. This proves that the tramway industry in the United Kingdom is a starved industry, because 3.03 per cent profit is not sufficient to attract capital or to justify its expenditure, nor does it provide a margin for enterprise in improvements and extensions.

The figures show that the average receipts per passenger were 1.05d., of which standing charges absorbed 0.544d. and the running costs 1.561d. From this it follows that the basic or fixed charge per passenger to which running expenses proportional to the length of journey have to be added should exceed 0.544d. at prewar rates, or, in other words, every passenger in 1913-14 should have paid 0.544d. plus an amount varied according to the distance traveled. This fare, however, would have provided a yield of only 3.03 per cent on the capital. A moderate yield is 6 per cent. To secure this the standing charge would have to be 0.777d., to which must be added the running costs. This allows only for 4 per cent depreciation, and as depreciation has to provide for replacement of equipment, it will be greatly increased by the rise in labor and materials. Taxation is also unlikely to revert to prewar levels in any near future, so that this figure for depreciation would hardly cover present-day costs.

In 1913-14 the average distance each passenger was carried for the average fare of 1.105d. was 2 miles. This would make a running cost of 0.281d. per passenger-mile. At postwar prices of labor and material, this cost will be doubled.

These figures give a fair average for the tramways in the United Kingdom under postwar conditions, based on an analysis of their own accounts. Greater London is, of course, a particular case, in which special factors have to be considered.

This is considered a sound method of settling fares and it will tend to raise the tramway industry, legislation permitting, from the position of being starved

to one in which it will be moderately prosperous, and, therefore, able to attract and to expend capital in improvements and extensions. This will meet the first criticism against the tramway industry; that is, that they fail to produce an adequate financial return to their proprietors. It will also enable the tramways to meet the second criticism that they fail to give the community the benefits of which they are capable.

Of the failures to benefit the community as much as they should, the most important is that tramways have not brought about that spreading of the population of large and crowded industrial centers in which they clearly can assist. The practice of giving very low fares for short distances encourages people to continue to live at distances within the radius of the minimum fares and also militates against reasonable financial returns. The system of standing charges and running costs makes the fare less per mile for long distances than for short ones. That is, a man living 2 miles from his work would not pay twice as much in fare as one living a mile away.

It is obvious that successive rings or zones at distances of 1 mile, 2 miles, etc., from a given center have areas proportionate to their distance. Taking the zones as a mile wide, that lying between 1 and 2 miles radial distance will have an area of nearly $9\frac{1}{2}$ square miles and that between 2 and 3 miles will have an area of $15\frac{1}{2}$ miles, etc.

With these increases of living room it is probable that rents will decrease with increasing distance from the center more rapidly than the annual expenditure on fares increased. There will be more room to live, more garden and park space, more sunlight and fresh air. The importance of providing the poorer classes with these improvements in their living conditions is well understood, but it has not been sufficiently recognized that a rapid and economical means of traveling over the greater distances between house and work is essential to this purpose and that it is best afforded by tramways up to at least 6 or 7 miles from the industrial centers.

It is at least partly due to the effect of low fares that the central districts of some of the large cities, such as Glasgow, have not been relieved of their overcrowded slums to anything like the extent which might have been expected from the operation of the very efficient tramways there. The low-fare system charges the short-distance passenger less and the long-distance passenger more than his fair share of the standing charges. It is, therefore, a direct handicap upon the spreading of the overcrowded population. It is not because Glasgow has not made tramway extensions to long distances from the center. It has done so in a few directions, although only seven of these "spurs" go beyond 3 miles from the central districts. The reasons for mentioning Glasgow are that the corporation there has made a special feature of halfpenny fares, keeping them in operation through the war, and that 14 per cent of the population are reputed to live in one-roomed houses. If the corporation had perceived the relation of tramway fares to overcrowding, there can be little doubt that it would have arranged them to encourage the spreading of the population rather than to discourage it.

Most people realize that minimum-fare passengers crowd the cars and that this has a tendency to drive away those wishing to travel longer distances and to encourage competitive services.

There are two obvious difficulties against setting up a rational fare system. The first is that tramway fares are generally limited to a maximum of 1 penny per mile, and any sound system—at present costs—must charge more than a penny for the first mile.

The community should no longer be subject to the council in the matter of fares and improved transport facilities.

The working classes have been misled into the idea that the halfpenny fare is an advantage to them, but as a matter of fact the conditions which it helps to foster are the very worst in all respects for themselves and their children. There is strong evidence that labor unrest comes from this overcrowding. What labor needs above all things is to improve its living conditions, and one of the most effective means to that end is to spread the houses outside the industrial areas in bright and pleasant surroundings where the workman and his family can enjoy their leisure time. To make this possible, the lowest possible fares for the longer distances and ample transport facilities for those districts are essential. Both these conditions will be favored by abolishing nonpaying short-distance fares, graduating all fares to include an enterprising spirit in the management.

Traveling facilities could be greatly improved in many cases by connecting up neighboring tramways and instituting through running. There are many cases where the use of tramways has been greatly increased by such arrangements, clearly showing that adjacent but separate tramways do not serve the best interests of the public.

A campaign of education and propaganda among the authorities concerned in favor of sound fare tables and a more tolerant spirit is urgently necessary, and the tramway interests should take up this work energetically.

Inasmuch as the system of fares advocated will raise the fare above the statutory limit of 1 penny per mile for the first mile, it may be necessary for the Government and Parliament to take action. The present Government proposes, however, to include in the powers of the Ministry of Ways and Communications that of regulating tramway fares among others, so that if that bill becomes law in that respect, the desired alteration will be by administrative action. At any rate the industry will know "what door to knock at," and with such a good case in the interests of all concerned it should not be so very difficult to ameliorate the conditions.

The second difficulty about the application of rational ideas to tables of fares is the matter of coinage. The following table gives the figures for distances from 1 to 5 miles:

Distance.	Fares.	Nearest coin value.
	<i>Pence.</i>	<i>Pence.</i>
1 mile.....	1.32	1½
2 miles.....	1.87	1½ or 2
3 miles.....	2.42	2½
4 miles.....	2.97	3
5 miles.....	3.52	3½

For the first 2 miles the nearest coins include farthings, and, even so, the difference between the theoretical fare and the nearest coin is a somewhat larger percentage of the total. Farthings are not popular. An attempt to rationalize tramway fares by the use of them was made some years ago on a number of systems and, after patient trial, was withdrawn. The penny has too small a value for the minimum fare, because the standing charges item alone is nearly 0.8d and the length of ride which could be given for the 0.2d balance is too small for a stage. Therefore the minimum fare must exceed 1 penny, and it should be a single coin.

The solution of this difficulty would be the adoption of the decimal system of coinage as approved by the associated chamber of commerce, the institute of bankers, and numerous other bodies. This system divides the pound into 1,000 mills, and includes the provision of a 5-mill nickel coin of the value of 10 to a shilling. This is equivalent to 1.2d and would suit a rational system of fares very well. The value is a little lower for the mile distance as set out above, but that table is only an illustration based on collective figures. The actual length of the stages will in every case have to be adjusted to the circumstances and costs of the particular system. There is no need to keep to even miles in making this adjustment. There would be no more difficulty in fitting the stages to the coins of a decimal system than to the halfpennies and pennies now in use. Five mills is a better starting point than a penny or the nearly equivalent 4 mills. The rational adjustment of fares which will put tramways on a sound financial basis and enable them to play the part they should in improving social conditions, will be greatly facilitated by the introduction of a decimal system of coinage.

The power of the tramway to give frequent service is not so generally recognized or utilized as it would be under more encouraging conditions. Frequency of service has an extraordinary power of developing traffic. The aim of the tramway manager is to run every car-mile on every route which will pick up anything in excess of its standing charges and bare cost of running. This object can not be attained by calculating from the number of people served and the minimum service which can suffice them. To attain the object calls for a continuous study of the habits and tendencies of the population,

their working hours, shopping hours, and places and times of recreation, entertainment, and any other factors tending to induce them to travel. This means adapting not merely the daily normal service, but adding more cars at suitable hours in accordance with the local circumstances. The formation of the traveling habit in the people living along any route, and the attraction to living on that route of people who have the traveling habit or traveling needs, is fostered by the appeal of a good service more effectively than by any other means. It is better to have a car making only a small net revenue per mile than to be standing idle in the shed. An enterprising manager will keep his services rather a little better than apparent necessities than a little below them. Experience shows that this policy pays. In some instances a route which has not paid during the dull hours of the day with a poor service has responded so well to a more frequent service during those hours that it has paid continuously.

The following is a summary of the points made:

1. Tramways are not so successful financially as they should be, and for that reason not able to do all that they might for the communities they serve.

2. One reason for the lack of financial success is that fares are not graded so that every passenger pays his fair share of standing charges as well as the cost of carrying him; the fares chiefly in default are the short-distance fares.

3. Generally, the minimum fare should be rather over 1d., because the standing charges alone approach closely to that amount. Rational grading will cheapen long journeys and encourage that spreading of population and relief of congestion, which is one of the principal social advances to which tramways can contribute, and at the same time give them the necessary financial strength to make the extensions and improvements needed.

4. The opposition to increasing the lowest fares is partly ascribable to short-sightedness on the part of the authorities concerned. It should be combatted by an educational propaganda wherever it exists.

5. Rational grading of fares will be greatly assisted by the adoption of decimal coinage with a 5-mill piece (1.2d.) as the practical unit for small transactions.

6. Frequent service is the best educating influence toward the formation of the riding habit among the public.

One of the most pressing problems facing the tramway operators is that of finance. Finance includes almost all things, labor, materials, fares, renewals—in fact, everything that goes to make the tramway machine efficient and fit to give that public service it is designed to afford. A way must be found to adjust fares so that tramway revenues shall be sufficient to enable operators to pay wages, purchase materials for daily use, and to leave a margin to pay a fair return on the capital invested and also accumulate a renewal or reserve fund to replace the wasting assets at the end of their lives. The revenue of a tramway can be increased in two ways: First, by charging each passenger a higher fare, and, secondly, by carrying a greater number of passengers.

The man in the street has readjusted his idea of values as regards clothing, food, amusements, etc.; but when travel is concerned, he seems to take a different view and demands his post-war privileges at prewar prices. Perhaps the consumer should not be blamed for this. The difficulty is to find a way of making the Government department see reason and to grant relief before the undertakings of the tramways get into a state of disrepair and inefficiency. The companies must have sufficient income, and the only way to obtain revenue is to charge each passenger the sum it costs to carry him the distance he travels. The cost is, of course, made up of working expenses, depreciation, and capital charges. There is an economic limit to fares chargeable on a tramway, and as soon as that limit is exceeded, away goes the business.

It is advisable that the company have the power to charge higher fares on Sundays, bank holidays, gala days, and special occasions, because higher wages have to be paid on those days. It costs more to give service on those days, and the companies are entitled to a higher fare. The great bulk of traffic on those days is purely pleasure, as distinguished from commercial traffic, so a higher fare would not be in restraint of trade.

There should not be workmen's fares. The so-called working classes are now drawing more pay than the middle classes, or even many professional men, and are not entitled to special rates. A change can not be expected, however, while vote-catching politicians rule the destinies of the country.

It has been mentioned that tramway revenues could be increased by carrying more passengers. The published records of the majority of tramways show that the systems are full to capacity and that it is a vain hope to look for relief from additional passengers. This may be untrue of some systems, but it is true of the majority.

Wages and conditions of employment in the tramway industry have kept pace or even outstripped the demand made upon other industries, and the only difference is that while the increased charges necessitated by the alteration of conditions and increase of wages are passed on by the trader or manufacturer, and the tramway companies are called upon to carry the burdens themselves.

As regards material, the condition is chaotic. The companies are paying the prices asked by the manufacturers. If a way could be found to standardize the bulk of the daily stores, and to buy on a cooperative basis, it would help solve the problem. Each tramway can not continue to have its own designs, but should put aside its preferences and prejudices and go with the crowd and help bulk production and diminished cost. Encourage brains and inventiveness by setting up a standing committee to consider and decide upon suggested improvements to standardized articles, but keep them standardized, embodying all the improvements that are discovered from time to time. An organization should be formed to collect data of all materials in use on the tramways and to place bulk orders with manufacturers. By bulk ordering the company would benefit by quality, workmanship, and price, and the manufacturers by increased output and economy of production.

In 1900 and subsequent years when electric tramways were being installed at a rapid rate, renewal funds were calculated and set aside on the basis of prices then prevailing. The funds have accumulated, and now, when renewals beckon the companies are astounded to find that the cash available is about 150 per cent less than will be required to renew the wasting assets at prices now current. The only solution of this problem is to " earmark " every possible penny for renewals, and any balance will have to come out of revenue. Another disagreeable item in connection with renewal funds or reserve is that they are invested in securities, and most securities have depreciated so that the tramway companies will get back less than they put in.

Another problem confronting the tramways is that of rolling stock. The type of cars at present in use in the United Kingdom is the ugly, unwieldy double-deck tramcar. The only thing to be said in favor of this car is the seating capacity. Many objections can be raised, such as excessive weight, time taken in loading and unloading, difficulty of fare collection, etc. Excessive weight not only means large maintenance cost of cars, but it also carries with it heavy maintenance cost of track, and as these are the two chief items in the repair bill of a tramway undertaking, they are very important and should be considered. Cars fitted with roof covers " are the acme of ugliness," and they are ungodly current gluttons and voracious enemies of rails. Is it too late to make a change, if a change is desirable.

One thing certain is that the design of cars should be simplified; a freer use should be made of steel and malleable iron and the use of wooden corner posts and intermediate pillars should be stopped. All brasswork, gold leaf, and fancy stuff of that description should be eliminated. The plainer the interior of a car can be made the better from the upkeep point of view and also the health of the passengers.

Car equipment should give ample clearances in order to get the best out of the tires and gear cases. The present springing of cars also should be improved.

Another problem is the maintenance of roads. The upkeep of the paving between tramway tracks and on the 13-inch margin has become a terrible tax on all tramways, due to present traffic conditions, such as the abnormal growth of heavy motor traffic. The tramways ought not to have to bear the entire cost of maintaining road surfaces which they do not use.

Another problem is that of motor omnibuses. Motor omnibuses in provincial towns compete successfully with tramcars for handling dense rushes of traffic, but in the future tramway tracks will not be laid into suburban and country districts serving comparatively sparse populations, and in such districts the motor omnibus is undoubtedly the vehicle of the future. The question of road maintenance, or rather of road adaptation and maintenance, is throttling the motor-omnibus business at present, and until this question is settled on a national basis, the motor omnibus will not take its rightful place

as a passenger-carrying vehicle. Most exorbitant demands have been made by road authorities on omnibus owners and operators and something will have to be done to settle this question. Everyone should pay alike for road maintenance. It is most unfair to compel passenger-carrying vehicles to contribute and leave trade vehicles of double the weight and of equal speed absolutely free of all charges.

There is also the problem of housing. That is, in some localities there are town-planning schemes being considered by local authorities. Extension of tramways at the present-day prices are unthinkable unless assistance is afforded by the authorities, and even then, in the present unsettled state of affairs in the traffic world, it is a question of whether any company is warranted in sinking money to meet demands which, in all likelihood, can not yield an adequate return for some years on the capital it will be necessary to expend.

In the past, tramways have been constructed and services run in districts that were not really ripe for development at the time the tramways were laid, but in the hope and expectation of future profits, services in excess of public requirements have been run to induce traffic; and now when the period of patient waiting is beginning to be rewarded, companies are faced with excessive charges in all directions and their meager profits seem likely to disappear entirely. At present it is quite impossible for any company to put down new lines unless assured of an immediate return.

It is also a problem how to provide useful and remunerative employment for disabled demobilized men and spare hands. On some systems the task of finding suitable work for disabled men has proved very serious. Many undertakings have a serious problem to solve regarding spare men, particularly places catering for a seasonal traffic or where the traffic is irregular and fluctuating. If public demands are to be met, the cars must be run regularly and on time, and to insure that this is done there must be available a percentage of men to understudy those who may be sick or idle or who have missed their duty because of other reasons.

The tendency of the day is for unskilled labor to demand and obtain the same rates of pay as skilled labor; and if this is to continue, what will the result be in the future? This will lead to a denuding of the county of skilled craftsmen. There is no incentive for any youth to stick to a particular trade and to make himself an efficient and capable craftsman.

Some effective steps must be taken to flatten the peak loads. It means a great deal on a busy system to spread the peak-load rush over a wider period, and there are great advantages to the public. A better distribution of traffic means improved facilities for the public and is also a marked saving in the wear and tear of rolling stock, economy in the generation of electric energy, and to some extent diminution of split turns. A further effort should be made to stagger hours.

It is no exaggeration to refer to tramway undertakings as a starved industry, even the reference is to prewar finances. Sir Eric Geddes, in introducing the ways and communications bill, stated that both municipal and company tramways produced a gross profit of 7 per cent. Allowing 4 per cent for depreciation, Mr. Magden gave the average net yield on the capital invested in tramways as 3 per cent. As he observed, the result proves tramways to be a starved industry, for a return of 3 per cent is not sufficient to attract capital or to justify its expenditure, nor does it provide a margin for enterprise in improvements and extensions. By increasing short-distance fares, in order to meet the 100 per cent increase on items affected by postwar prices, Mr. Magden estimated that a yield of 6 per cent would be produced. The further dispersal of population from crowded industrial centers would not be the least beneficial effect. Methods were suggested for overcoming two hindrances that operate against setting up this rational fare system. The first obstacle is that fares are generally limited to a maximum of one penny per mile, while at present costs there must be a charge of more than one penny. This may entail action on the part of the Government and Parliament, but as the transport bill includes a provision for regulating tramway fares among others, the desired advantage would be by administrative action. It would be a great advantage if such action would override the numerous provisions in special acts and orders, and agreements between companies and local authorities setting out scales of fares or maximum fares, which have often been wrung from the companies.

For the purpose of educating the local authorities and, if need be, the legislators, a plan is proposed that has proved successful in the United States; to wit, a campaign of publicity. The same remark is applicable to London as

far as omnibus fares are concerned, for, apart from the Members of Parliament who have an eye to a general election in the near future, complaints have not been heard. On the contrary, passengers consider themselves fortunate to have so rapid and so cheap a service. Mr. Dalrymple predicted that even two or three years hence every undertaking would require a much larger revenue from fares to meet the expenditure. None of the managers who discussed Mr. Magden's paper objected to the author's main conclusions. To a large extent, the demands of labor are responsible for the present situation. On peace day in London the receipts of one company were about £14,000, while the cost of labor alone with double pay for the day was £18,000. If a public holiday is to be made an occasion for holding tramways to ransom, the balance will have to be properly adjusted by making an extra charge for those occasions. This was suggested by Mr. England. Mr. England was even more insistent than was Mr. Magden in urging the need for a publicity effort, and it is to be hoped that the two tramways organizations will not permit the matter to drop.

Discussions.—Mr. C. J. Spencer, manager of the London & Suburban Traction Co. (Ltd.), stated that the shortening of the zones, as was done in London, was not enough. When a zone was shortened, the burden was placed unequally on the shoulders of the passengers. About 50 to 60 per cent paid no increase at all. On the other hand, the long-distance passenger had to pay 100 per cent more, and he naturally objected. Mr. Spencer thought that the tramways could not continue to operate successfully at the present rates. He believed that the right method was to have full publicity.

Mr. A. L. C. Fell, manager of the London County Council Tramways, said that he was a believer in giving the long-distance rider a cheap fare. He thought that it was most unfair that the tramway should have to pay for all the improvements on a street simply because the tramway used that street, when every other vehicle was allowed to use that street free of cost. The tramways were called on to maintain the paving of half the street which they did not wear out.

Mr. Dalrymple, general manager of the Glasgow Corporation Tramways, stated that several years ago the Glasgow corporation doubled the zone where 1d. was paid and the gross revenue increased tremendously. The cost was somewhat higher, but the company was able to meet expenses. He said that the corporation had only had a balance of £14,000 without any sinking fund and that although all indebtedness had been wiped out, there was no fund to keep the undertaking thoroughly up-to-date. He said it was his opinion that the fares must be raised in order that the company should be able to provide the most efficient service.

Mr. Stanley, manager of the New St. Helens & District Tramways Co. (Ltd.), said that something must be done to avoid the difficulty caused by the short-distance rider overcrowding the car for the long-distance rider. He thought less frequent stops should be adopted.

Mr. H. E. Hogg, chairman of the Sunderland District Electric Tramway (Ltd.), said that the people didn't need to be educated, but that the Government should be asked to allow the increase in fare.

Mr. McElroy, general manager of the Manchester Corporation Tramways, stated that in Manchester they were meeting the increased expenses in a way that was not beneficial to the tramway public. They were overcrowding the cars, giving less comfortable travel. He thought that the present apparent prosperity in their company would not be long-lived and that before long the people would demand more convenient means of travel, and this could be provided only if higher fares were charged.

In recommending that municipal tramways be excluded from the ways and communications bill, Sir Eric Geddes stated that "these undertakings are earning 7 per cent on their capital." The only sense in which this statement could be substantiated is by taking the balance between gross receipts and expenditure. When the necessary reductions have been made to meet all liabilities, it is doubtful whether the average return spread over the whole of the undertakings reaches 3 per cent. Many individual undertakings are found to earn sufficient to provide for renewals, while some municipal authorities are forced to levy a rate to meet deficiencies. Company undertakings, which are not handicapped by having to provide an annual installment for the repayment of their capital—their dividends fall far short of the aggregate earnings attributed by the minister to tramway enterprises. The board of trade's report shows why privately owned lines do not appear to show such good results as some municipal tramways. This report shows that some hindrances also beset municipal

undertakings. The task of removing these undesirable conditions can not be successfully carried through without resort to Parliament, but as company tramways are to come under the new ministry, it may be assumed that the latter body will undertake the initiation of this item in the reconstruction program. In the matter of extension of a rural and interurban character, which will be made urgent by housing and agricultural needs, the new ministry can help considerably. It would be wiser for the municipal railways to be controlled in the same manner as are the privately owned railways. Tramways would gain from a coordination of railway and tramway interests.

In the negotiations between the tramway workers and operators it is noticed that the employees recognize that the working expenditure can not be increased without further calls upon the passengers who keep the undertaking going. It was agreed that if the undertakings were not permitted to raise their fares, the agreement could be terminated at one month's notice.

I might say one of the commissioners, Mr. Mahon, has written an article making a comparative study of the operations in Great Britain and American cities, particularly drawing the distinction between Glasgow, Cleveland, Buffalo, Detroit, and Cincinnati. We have a copy of it, and I think we should make that a part of the record, if Commissioner Mahon does not object.

The CHAIRMAN. Have you any objections to that, Mr. Mahon?

Commissioner MAHON. No.

The CHAIRMAN. It will be so understood.

Mr. WARREN. You will put this into the record also?

Mr. OGBURN. Yes.

Mr. WARREN. I should like, if it is proper, to have the Code of Principles of the association put into the record. It is not long.

The CHAIRMAN. Will you see that that is done, Mr. Ogburn?

Mr. OGBURN. Yes.

The Code of Principles is as follows:

CODE OF PRINCIPLES ADOPTED BY THE AMERICAN ELECTRIC RAILWAY ASSOCIATION
AT ITS THIRTY-THIRD ANNUAL CONVENTION HELD IN ATLANTIC CITY, N. J.,
OCTOBER 12 TO 16, 1914.

1. The first obligation of public utilities engaged in transportation is service to the public.

The first essential of service is safety.

Quality of service must primarily depend upon the money received in fares. For this reason it is necessary that the rate of fare should be sufficient to permit the companies to meet the reasonable demands of patrons and to yield a fair return on a fair capitalization.

2. Regulated private ownership and operation of electric railways is more conducive to good service and the public welfare than government ownership and operation, because the latter are incompatible with administrative initiative, economy, and efficiency, and with the proper development of cities through the extension of transportation lines. The interests of the public are fully protected by the authority given to regulatory bodies.

3. In the interest of the public and good service, local transportation should be a monopoly and should be subject to regulation and protection by the State rather than by local authorities.

4. Short-term franchises are detrimental to civic welfare and growth, because they ultimately check the extension of facilities and discourage good service.

5. In order to render good service, electric railways must be allowed to earn a fair return on a fair capitalization, and the foundation for this result will be obtained if the issuance and sale of securities representing such fair capitalization shall be legally authorized on such terms as will produce the requisite funds.

6. Securities which have been issued in accordance with the law as it has been interpreted in the past should be valid obligations on which an electric railway is entitled to a fair return.

7. The relation of adequate wages to efficient operation should always be recognized, but electric railways, being public servants regulated by public authorities, should be protected against excessive demands of labor and strikes.

8. The principle of ownership of securities of local companies by centralized holding companies is economically sound, for the reason that the securities of the latter have protection against the varying business conditions of a single locality or company and because money for construction and improvements can thus be more readily obtained.

9. In the appraisal of an electric railway for the purpose of determining reasonable rates, all methods of valuation should have due consideration.

10. Full and frank publicity should be the policy of all transportation companies to the end that proper information may be available to the investor and the public.

The CHAIRMAN. We will now stand adjourned until 10 o'clock to-morrow morning.

(Whereupon, at 9.30 p. m., an adjournment was taken to Saturday, October 4, 1919, at 10 a. m.)





